

Becoming a Garden Earth Naturalist: Activism with Rachel Carson

Essential Question(s):

What can you do to stand up for the environment?

At a Glance: Learners are introduced to the life and work of Rachel Carson and are guided in discussion and reflection about her impact on the environmental movement.

Background Information:

Rachel Carson is known for her advocacy against spraying DDT and other synthetic chemicals for agricultural purposes in the 1960s. She later wrote articles and books encouraging people to explore nature and marvel at the wonders of nature.

Carson was born in 1907. She grew up in Pennsylvania and discovered nature there on her family farm. She read a lot and loved to write. She was 10 years old when she published her first writing in a children's magazine.

She studied zoology at the Pennsylvania College for Women, then obtained her masters degree in genetics from Johns Hopkins. Her first major job was with the Bureau of Fisheries (now known as the U.S. Fish and Wildlife Service). Her first book, *Under the Sea-Wind*, was published in 1941. Carson later published *The Sea Around Us*, *The Edge of the Sea* and *The Sense of Wonder* (published after her death).

Silent Spring was published in 1962. The book explored how dichlorodiphenyl trichloroethane (DDT - a pesticide) and other synthetic chemicals were poisoning local lakes, rivers, oceans, wildlife, and people as they cycled through the food chain from soil to water, to insects, birds, fish, and other wildlife, and eventually to humans. The close extinction of the bald eagle, the United States' national symbol, peaked Carson's interest into this subject. This pesticide was widely used to kill insects on agricultural crops, as well as mosquitoes, fleas, and lice. The chemical made its way through the food chain, eventually to the prey that eagles and other birds ate. In 1963, there were only 417 pairs of bald eagles found nesting by the U.S. Fish and Wildlife Service. The eagle eggs were cracking under the weight of nesting mother eagles due to the DDT weakening the shells. As a result, their population plummeted.

In *Silent Spring*, Carson professed that human intervention with nature could be dangerous. She was criticized by the chemical companies and some government figures as an alarmist, not having scientific proof. She stood strong, however, and kept educating people on this issue. John F. Kennedy later had the President's Science Advisory Committee examine the issues raised in *Silent Spring*. Rachel's efforts paid off when DDT was banned in 1972. She never knew of her victories however, because she died of

Location: Outdoors or indoors

Objectives: *Learners will:*

- 1) learn about the work of Rachel Carson, an important environmental activist.
- 2) reflect on her work.
- 3) consider issues in their community that they could positively affect through a service project.

Skills: reflection, creative writing, questioning, expression, perception

Supplies:

- 'Sense of Place' PowerPoint
- journal
- pencil

Subjects: science, language arts

Time: 30 minutes

breast cancer in 1964. Some speculate that the carcinogenic chemical she was fighting for the sake of the environment may have contributed to her own death.

Rachel Carson has been called the “mother of the modern environmental movement.” She did wonders for ecosystem health, women in science, and standing up for an important cause even when it seemed that most people were against her. She made way for today’s environmentalists to keep fighting for the protection of our earth.

Check out www.rachelcarson.org for more information about Rachel Carson’s life and contributions to the environmental movement.

Procedure:

Discuss Rachel Carson’s life and the impact she had on the environmental movement. Use the handout to help students follow along.

- ◆ Do you think it made a difference that she was a woman scientist?
- ◆ Would a man have gotten more respect? less respect?
- ◆ What would have happened if she had been intimidated and had not stood up against the chemical companies and the government?
- ◆ What would be the state of our ecosystems today if these dangerous chemicals were still used?

Have students reflect in their journals or on the handout about the discussion. What are some issues that they can stand up for today? What would they do if they were met with opposition? Use the following quote from Rachel Carson as a catalyst.

“One way to open your eyes is to ask yourself, What if I had never seen this before? What if I knew I would never see it again?”

- Rachel Carson

Discussion/Assessment:

How did this journaling activity help you think about service in your community or school site?

What are some environmental issues we can get involved in?

Rachel Carson Fact Sheet

- ◆ Born in 1907 and grew up on family farm in Pennsylvania.
- ◆ First published at age 10 in a children's magazine.
- ◆ Studied zoology and genetics in college.
- ◆ Worked for the Bureau of Fisheries (now known as the U.S. Fish and Wildlife Service)
- ◆ Books: *Under the Sea-Wind*, *The Sea Around Us*, *The Edge of the Sea*, *Silent Spring*, and *The Sense of Wonder* (published after her death).
- ◆ In *Silent Spring*, she exposed how DDT was detrimental as it moved through the food chain.
- ◆ DDT was used to kill insects for agricultural purposes as well as to control fleas, lice, and mosquitoes.
- ◆ DDT is blamed for the almost extinction of the American bald eagle.
- ◆ In 1963, there were only 417 pairs of bald eagles in the U.S.
- ◆ DDT was banned in 1972.
- ◆ There were 4,712 pairs of bald eagles by 1995 and they are no longer on the endangered species list.
- ◆ Rachel Carson died of cancer in 1964.
- ◆ Carson known as the “mother of the modern environmental movement.”



Here are some questions to think about and discuss. Write about your thoughts on the back of this page or in your journal. Use the following quote by Rachel Carson to encourage your journaling thoughts as well.

1. Do you think it made a difference that she was a woman scientist?
2. Would a man have gotten more respect? less respect?
3. What would have happened if she had been intimidated and had not stood up against the chemical companies and the government?
4. What would be the state of our ecosystems today if these dangerous chemicals were still used?

Rachel Carson once said, “*One way to open your eyes is to ask yourself, What if I had never seen this before? What if I knew I would never see it again?*”