

SAMPLE SCRIPT OUTLINE:

“Rachel Carson: A Frontier for the Environment”

1. Introduction (time and situation)
 - a. Overview of Carson and her career
 - b. Introducing the “problem”

2. Discovering the harms of pesticides
 - a. WWII & DDT
 - i. Outline the use of chemicals
 - ii. Explore the harms
 1. Use of actual studies of DDT

3. Book
 - a. Selections from writings
 - i. Direct quotes
 - ii. Experiments made
 - b. Reviews of publication
 - i. Direct quotes

4. Student
 - a. Brief short and long term impact of Carson's work

5. Epilogue

SAMPLE SCRIPT OUTLINE:

“Rachel Carson: A Frontier for the Environment”

2023 History Day, “Frontiers in History”

Bold: Primary source quotes
(Words in brackets): Blocking on stage

THESIS (Center in front of set)

In 1962, Rachel Carson, an ecologist, activist, marine biologist and author published her most famous book, *Silent Spring*. Her work created a frontier in history by helping the average person realize the effects of DDT and how dangerous insecticides and chemicals can be to human kind. Her research and findings led to the 1970 banning of DDT and the founding of the Environmental Protection Agency.

(Sitting down) It all started one day when my friend sent me a letter. In her letter, She told me about aerial spraying of pesticides that killed the songbirds on her property. I was horrified, I started thinking. What if this was not unique to my friend’s place, what if this was happening everywhere. What if we killed all the songbirds Could this be true? Were birds dying because of us . . . Humans? And then it hit me. It couldn’t have been just birds that were dropping dead because of toxic chemicals, other animals and wildlife must’ve been affected too. We’re seeping toxicity into the earth and poisoning everything. What if humans were being exposed to these chemicals? What if humans were dying because of humans? But how could I prove this? After all, this was just a theory. I needed solid evidence. I needed the chemical behind it all. I needed research. And so it began. Countless hours of reading and re-reading scientific papers and studies trying to figure out the common denominator of these chemical pesticides.

CHANGE OF TIME (Stage left - by table)

After months of hunting and gathering information and researching about pesticides I have finally found what’s going on. There are so many chemicals. We needed fertilizer, we needed pesticides and we created so many concoctions to help feed our population during WWII. One of these combinations is deadly, one of these is killing our song birds and impacting our food chain? What if, in our quest to help people through pesticides, herbicides and fertilizer, we created a chemical monster? (Lab coat on) I have been analyzing so many agricultural chemical formulas, my head

hurts. The connections are there, and I need to find them. . . I am testing the waters in the ponds, the rivers, the streams after spraying.

(Test the water, gasp when water changes color)

We used so much DDT or dichlorodiphenyltrichloroethane. This compound is the connection to what we are seeing in our declining population of birds and insects.

During WWII, the military used the chemical DDT to control malaria and typhus but it was also used as a pesticide. Today, people use DDT daily. It's sold in so many different forms, and used in so many different ways. I still have to figure out how to prove my discovery and inform the rest of the world, and continue to collect my research.

Everyone needed to know about these chemicals, but this is a lot to take in. I need something to inform but not overwhelm the population about DDT. I needed to write a book. I didn't want to write a book, I've asked other people to write this book, but no-one else will.

So, I have quit my job. To work on my book. I have to explain with meticulous research what is happening to our world and its inhabitants. My research could show that we are killing ourselves with chemicals... My book may save the world.

Whew, that's a lot of pressure but I can do this.

For all time people have thought that after a good rain, everything is washed away and clean again but in reality that's not true. My research proved that The DDT in the pesticides we're using is not disappearing, it is slowly seeping into the ground, into the plants, the insects, the water and the animals. Take for example, this corn. It has DDT in it from being sprayed by pesticides and when this cow eats the corn, the DDT transfers to the cow. Now the cow doesn't just have as much DDT as one corn cob, it has bushels worth of DDT inside. This is the same with chickens. They eat the corn, and the DDT accumulates. Like the cow and the chicken, when humans eat plants and animals that contain DDT, we sicken and die as well.

Does DDT get passed on through offspring? When a bird, like an eagle lays its egg, DDT is in the egg which weakens the shell, and eventually the egg breaks with the weight of mama eagle keeping her eggs warm, which means no baby eaglets. (Take off Lab coat)

(Walk to stage left) For the last few weeks all I could think about was my book. I've been eating, sleeping and breathing my research. It's been coming to me in bursts and it's all I can do to get my thoughts written down.

“Why should we tolerate a diet of weak poisons, a home in insipid surroundings, a circle of acquaintances who are not quite our enemies, the noise of motors with just enough relief to prevent insanity? Who would want to live in a world which is just not quite fatal?”

That's really powerful. Now how should I incorporate the relationship between all living things and the environment around them? Okay I've got it.

“The earth's vegetation is part of a web of life in which there are intimate and essential relations between plants the the earth, between plants and other plants, between plants and animals. Sometimes we have no choice but to disturb these relationships, but we should do so thoughtfully, with full awareness that what we do may have consequences remote in time and place.”

There are so many components to writing a good book, but I have always had a passion for writing. I think I can get this done. I have to get this done.

I worked on this book for so many months, it's all a blur. There were obstacles of course, but I've powered through. It's finally time to publish my book, and I'm going to call it Silent Spring.

I got it published! I had so many doubts circling my mind, but I think it was a success. In the first 3 months I sold over 100,000 hardcover copies! I can still hardly believe it. For weeks and weeks I saw my book everywhere. People were carrying it down the sidewalk, displays in stores, newspaper articles and reviews, even president John F. Kennedy read Silent Spring.

Here's one of the reviews: **“one of the special delights in reading Rachel Carson's books is the sense of great unity of the natural world that they always convey. No single part of nature can exist independently, Ms. Carson reminds us, and man, like all the other animals, is in the deepest sense a part of his environment. Implicit in her view is the idea that any crime or irresponsible act against one part of plant or animal life is in reality an attack on the whole of the natural world.”**

Not all the reviews were positive though. I read reviews several times saying that my book was very controversial and proceed with caution. I even read a review calling me a witch! Others just said that I was insane and didn't know what I was talking

about. The people who attacked me the most were the chemical companies. The reviews called me emotional, and uninformed as a scientist or a psychiatrist.

But I wasn't going to let them silence me. I'm going to keep speaking out for all the living things sprayed by DDT and other chemicals. This still isn't over, I have to give it everything I got to prevent a silent spring. People are starting to become aware of the dangers of chemicals, some of my biggest supporters are moms who only recently were made aware of how drugs and chemicals can cross the placental barrier thanks to Frances Oldham Kelsey, and her work with the FDA on Thalidomide.

(Stage Right grab backpack)

Student here - talking about schedule and being here at the University of Maryland studying zoology, walking into this same classroom where my hero Rachel Carson taught!

It's my first day at the University of Maryland, and I'm here on the very campus where my hero Rachel Carson taught Zoology. She worked to create a better environment for everyone, but I understand the other perspectives as well. In nations where malaria still rages, the need for mosquito controls like DDT is essential. It's hard to convince a mother that the chemical is bad, when they're watching their child die of malaria. There's a balance we need. Chemicals are needed to fight the fungi that want to make us ill and the weeds that want to devour our crops, fertilizers have to be used if we want to avoid hunger in the world.

Rachel's Frontier work was to show us that chemicals last, they stay in our systems. We need other solutions like GMO's for our crops to resist pests, netting to destroy mosquito larva, less tillage for weed control, and fewer chemicals on our lawns.

EPILOGUE - center stage

Rachel's frontier work led to the creation of the Environmental Protection Agency. The EPA's first act was to ban the use of DDT in the United States. Unfortunately, Rachel Carson wasn't there to see it. (sadly holding lab coat)

Her fight to save all living things didn't save her. She died of breast cancer in 1964. Many believe it was because of all the chemicals she was working with. DDT itself is proven to cause cancer. This story is one of many environmental catastrophes that have happened and are going to happen and we can't all live up to Rachel Carson, but we can let her inspire us to change how humans live in harmony with the natural world. It's important to remember Rachel Carson's legacy showing us a frontier for

living and working with chemicals. It isn't that all chemicals should be banned, some are too toxic and must be used very sparingly or not at all, and others we depend on to feed the world. We must learn to use only what we need to grow our food and sustain our planet.