VA #1 Environmental Consequences of Postwar Industry 1

Environmental Problems	Possible Causes of These Problems

VA #2 Environmental Regions of North America

Key

1. Arctic Cordillera
2. Tundra
3. Taiga
4. Hudson Plains
5. Northern Forests
6. Northwestern Forested Mountains
7. Marine West Coast Forests
8. Eastern Temperate Forests
9. Great Plains
10. North American Deserts
11. Mediterranean California
12. Southern Semi-Arid Highlands
13. Temperate Sierras
14. Tropical Dry Forests
15. Tropical Humid Forests

VA #3 Locations of Key Cities in North America

Key

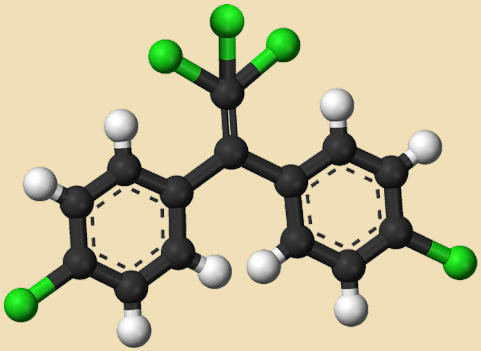
1 Arctic Cordillera
2 Tundra
3 Taiga
4 Hudson Plains
5 Northern Forests
6 Northwestern Forested Mountains
7 Marine West Coast Forests
8 Eastern Temperate Forests
9 Great Plains
10 North American Deserts
11 Mediterranean California
12 Southern Semi-Arid Highlands
13 Temperate Sierras
14 Tropical Dry Forests
15 Tropical Humid Forests

VA #4 Environmental Consequences of Postwar Industry 2

Case (Community)	Environmental Problems	Causes of These Problems

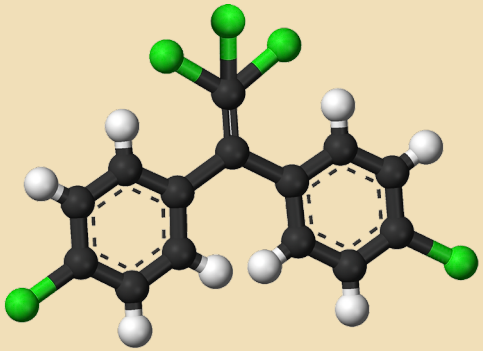
VA #5 DDT Talking Points 1

- DDT stands for Dichloro-diphenyl-trichloroethane. It was developed in 1939 as an insecticide by Dr. Paul Müller who found that it quickly killed flies, aphids, mosquitoes, walking sticks, and Colorado potato beetles. Its ability to kill so many species at one time made it the most effective pesticide known in the world at the time.
- The United States used DDT during World War II to kill typhus-carrying lice in Italy and malaria-carrying mosquitoes on South Pacific islands in order to protect the Allied troops fighting in those areas. They also used it regularly to dust soldiers traveling around the world to kill any lice they might accidentally be carrying.
- After the war, civilians could buy the pesticide for household use. In 1945, farmers began using DDT on their fields to eliminate pests.
- In 1948, Dr. Müller won the Nobel Prize for his work in developing DDT.
- By 1967, malaria had been eliminated from populated areas of the world.



VA #6 DDT Talking Points 2

- DDT seeps easily into soil and mixes with water. During irrigation, runoff carries it to streams, rivers, and coastal waters.
- DDT works its way up through food chains. It concentrates in the fatty tissue of insect-eating fish and fish-eating animals, most notably birds.
- Some studies have shown DDT to cause cancer and reproductive problems in birds. Chemicals like DDT, mercury, and lead can weaken the eggshells of birds, resulting in parent birds crushing their egg clutches as they sit in their nests.
- The long-term effects of DDT on humans are not well understood, but concerns exist in the areas of cancer and developmental toxicity. It is considered moderately toxic by the World Health Organization.
- The United States banned the use of DDT in 1973, although other parts of the world still use it. The buildup of DDT in water can be reversed; the U.S. EPA reported a 90% reduction of DDT in Lake Michigan fish by 1978 as a result of the ban.



VA #7 Who Was Rachel Carson? 1

- Rachel Carson was born in 1907 in Springdale, Pennsylvania, where she grew up.
- She graduated from the Pennsylvania College for Women (now Chatham College), where she earned a degree in Marine Biology. She earned a masters degree in zoology from Johns Hopkins University in 1932.
- She worked for the United States Bureau of Fisheries writing radio scripts during the Depression.

Rachel Carson, 1940

- She became editor-in-chief of all publications for the United States Fish and Wildlife Service in 1949.
- She resigned from government work to become a full-time writer in 1952. She was quite successful writing naturalist articles and books.
- In 1962, her book *Silent Spring* was published. In it, she warns the public about the long-term effects of overusing and misusing chemical pesticides.
- In 1963, she testified before Congress about the need for government policies to protect human health and the environment.
- Rachel Carson died in 1964 of breast cancer at the age of 56.

VA #8 Who Was Rachel Carson? 2

What was the reaction to Rachel Carson's book, *Silent Spring*?

- Many people were alarmed, and the chemical industry fought back in the media, attacking Carson and her research.
- President John F. Kennedy ordered the President's Science Advisory Committee to research the findings in Carson's book.
- Suddenly, people became aware of, and concerned about, some of the negative effects of human technology on the environment.
- The book encouraged people to reassess methods used in agriculture and consider more than just economic factors.
- The modern environmental movement was born.