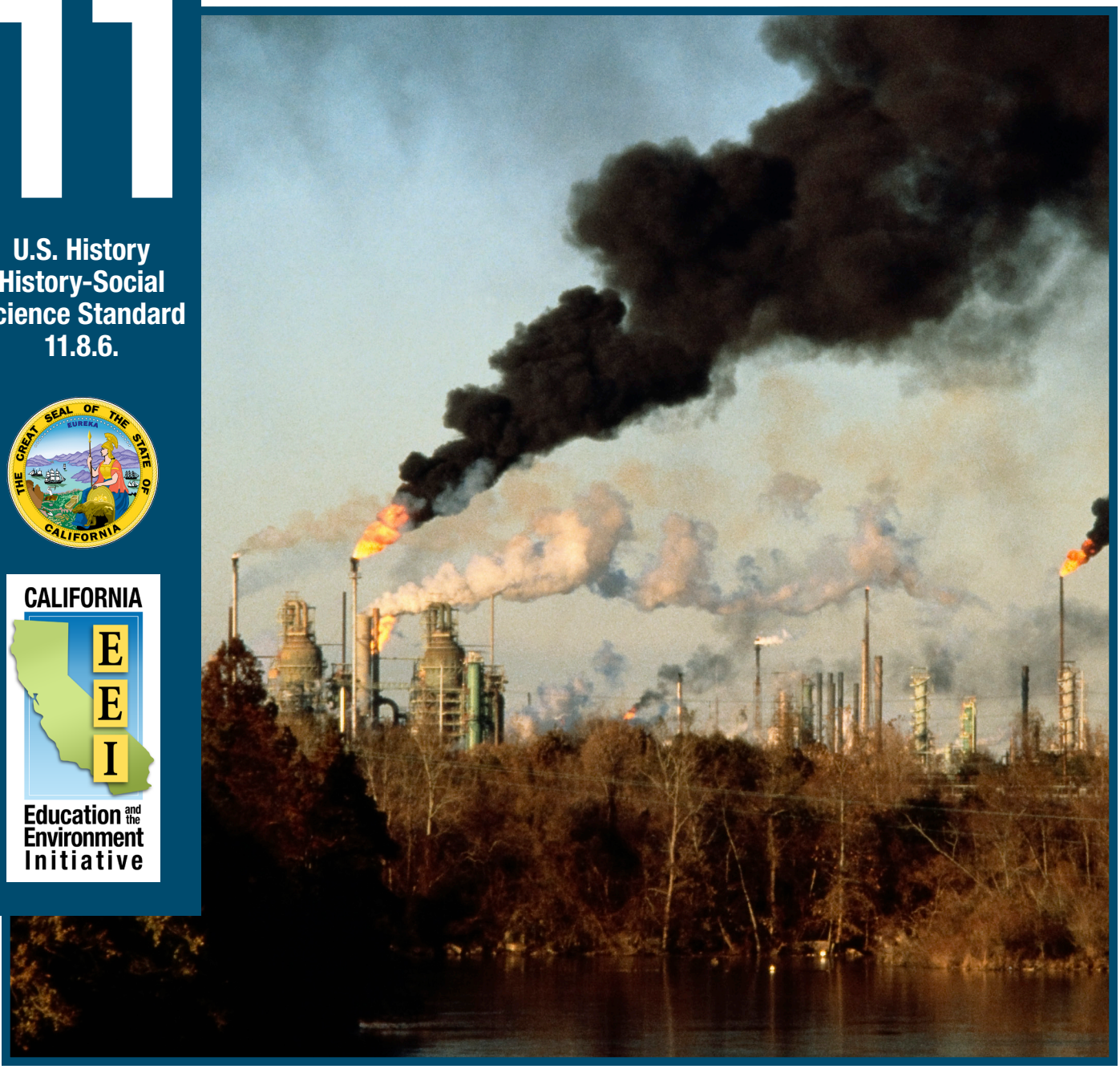
11

U.S. History
History-Social
Science Standard
11.8.6.



Student Workbook

California Education and the Environment Initiative

Postwar Industries and the Emerging Environmental Movement

California Education and the Environment Initiative

Approved by the California State Board of Education, 2010

The Education and the Environment Curriculum is a cooperative endeavor of the following entities:

California Environmental Protection Agency
California Natural Resources Agency
Office of the Secretary of Education
California State Board of Education
California Department of Education
California Integrated Waste Management Board

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Key Partners:

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Acid rain: Rain with higher-than-normal acidity, usually caused by air pollution.

Advancements: Progress with, improvements to, or development of something, for example, increasing the speed of computers.

Degradation: The process of diminishing the condition of a natural system from its previous condition, such as a decrease in its biological diversity.

Ecosystem goods: Tangible materials, such as timber and food, produced by natural systems, that are essential to human life, economies, and cultures.

Ecosystem services: The functions and processes that take place in natural systems, such as pollination, that support or produce goods and help sustain human life, economies, and cultures.

Environmental assessment: Determining the scale, size, and scope of the effects—positive and negative—that a proposed action may have on the natural environment.

Environmental impact: The direct and indirect consequences of an action or event on the natural surroundings.

Environmental Impact Report (EIR): A report, required by the California Environmental Quality Act (CEQA) of 1970, that requires "major" actions or projects to be assessed as to their potential effects on the environment prior to being implemented.

Environmental region: A geographical area that is defined by its distinct natural systems, including ecosystems, landforms, climate, and soils.

Habitat fragmentation: The division of an ecosystem into, noncontagious areas.

Hypoxia: Oxygen depletion.

Pesticide: Any substance used to prevent, destroy, or repel a pest, such as insects, rodents, weeds, or microorganisms.

Radioactive: A material that spontaneously releases energy in the form of radiation.

Salinization: The accumulation of mineral salts in topsoil to levels that are above normal.

Surplus: An excess supply of goods or services.

Name: _____

Instructions: After reading ***California Connections: A Postwar Boom in the Central Valley,*** answer the following questions. (5 points each)

1. Describe the environment of the Great Central Valley before World War II.

_____
_____
_____
_____
_____
_____
_____

2. Describe the environment of the Great Central Valley during the 30 years after World War II.

_____
_____
_____
_____
_____
_____
_____

3. What industries "boomed" during and after World War II in the Great Central Valley?

_____
_____
_____
_____
_____
_____
_____

Name: _____

4. How did postwar industries affect the landscape of the Great Central Valley?

5. How did the postwar industries affect the water of the Great Central Valley?

6. How did the air quality change in the Great Central Valley, and how did that affect the environment in the region?

Name: _____

7. What is happening in the Great Central Valley today to address the environmental problems in the region?

_____

_____

_____

_____

_____

_____

_____

Name: _____

Part 1

Instructions: Next to the name of each North American environmental region, write "A" if it is an area in which agriculture is active, "E" if it is an area in which the energy industry is active, and "A and E" if both are active. Put an "X" in the space if neither industry is active in the region. (1 point each)

_____ Arctic Cordillera

_____ Tundra

_____ Taiga

_____ Hudson Plains

_____ Northern Forests

_____ Northwestern Forested Mountains

_____ Marine West Coast Forests

_____ Eastern Temperate Forests

_____ Great Plains

_____ North American Deserts

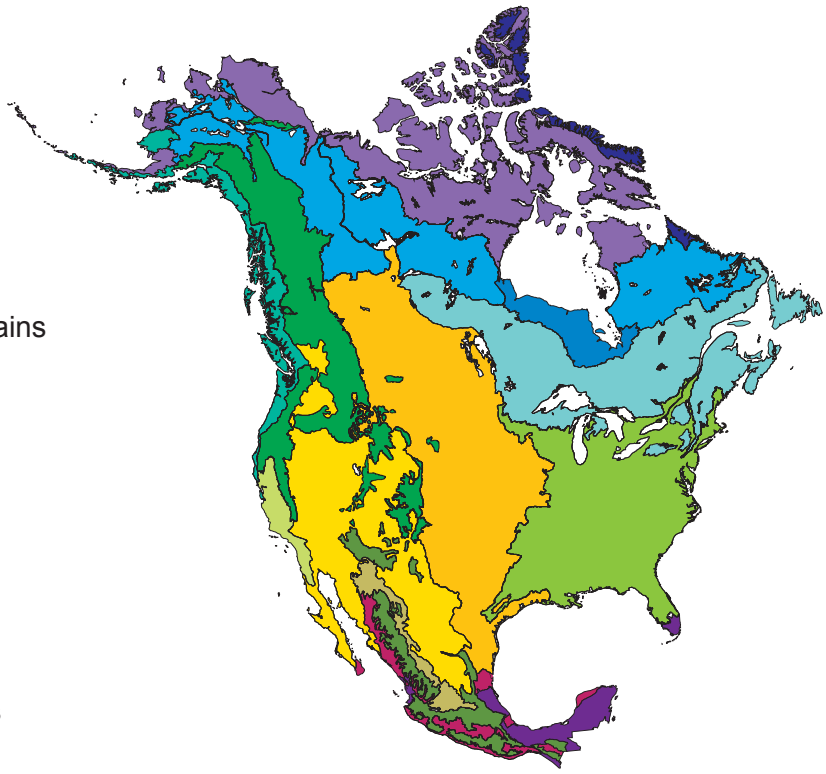
_____ Mediterranean California

_____ Southern Semi-Arid Highlands

_____ Temperate Sierras

_____ Tropical Dry Forests

_____ Tropical Humid Forests



Part 2

Instructions: Answer the following questions during the environmental regions of North America discussion. (5 points each)

1. In which environmental region(s) is the agriculture industry active in North America?

_____

_____

_____

_____

_____

Name: _____

2. In which environmental region(s) is the energy industry active in North America?

_____

_____

_____

_____

_____

3. Are there any natural regions that do not have agriculture or energy industry activities occurring within them? If so, which region(s)?

_____

_____

_____

_____

_____

4. Why is agriculture found primarily in regions where there are grasslands and forests?

_____

_____

_____

_____

_____

Name: _____

Part 1

Instructions: As you visit each station, describe how the practices and business methods changed for each of the industries listed below after World War II. (5 points each)

Agriculture

Farming of food and nonfood crops: _____

_____

_____

_____

_____

_____

_____

Cattle, pig, and poultry ranching: _____

_____

_____

_____

_____

_____

_____

Energy

Coal mining: _____

_____

_____

_____

_____

_____

_____

Name: _____

Oil and natural gas extraction: _____

Hydroelectric power generation: _____

Nuclear power: _____

Name: _____

Part 2

Instructions: Use information from today's lesson to answer the question below. (10 points)

What were the factors that led to the "boom" in the agriculture and energy industries after World War II? Provide two specific examples in your answer.

Name: _____

Instructions: Answer the following questions about each community based on the case stories read in class. (2 points each)

The North Slope, Alaska

What postwar industries were established in this area? Why?

_____

_____

_____

_____

What were/are the environmental consequences of industrialization in this area?

_____

_____

_____

_____

_____

Astoria, Oregon

What postwar industries were established in this area? Why?

_____

_____

_____

_____

What were/are the environmental consequences of industrialization in this area?

_____

_____

_____

_____

_____

Name: _____

Lafitte, Louisiana

What postwar industries were established in this area? Why?

_____

_____

_____

_____

What were/are the environmental consequences of industrialization in this area?

_____

_____

_____

_____

_____

Centralia, Pennsylvania

What postwar industries were established in this area? Why?

_____

_____

_____

_____

What were/are the environmental consequences of industrialization in this area?

_____

_____

_____

_____

_____

Name: _____

Ogallala, Nebraska

What postwar industries were established in this area? Why?

_____

_____

_____

_____

What were/are the environmental consequences of industrialization in this area?

_____

_____

_____

_____

_____

Name: _____

Part 1

Instructions: Read each of the responses from world leaders to Rachel Carson's book, *Silent Spring.* Then answer the question under each quotation after discussing it with a classmate. (5 points each)

On August 29, 1962, a reporter asked President [John F.] Kennedy if he was going to ask the Department of Agriculture and Public Health to take a closer look at the possible effects of DDT and other pesticides. The President responded, "Yes, and I know they already are. I think particularly, of course, since Miss Carson's book."

1. What effect do you think Rachel Carson's book had on the federal government's role in assessing human effects on the environment?

_____

_____

_____

_____

_____

"The growers only have themselves to blame as they begin to reap the harvest from decades of environmental damage they have brought upon the land—the pesticides, the herbicides, the soil fumigants, the fertilizers, the salt deposits from thoughtless irrigation—the ravages from years of unrestrained poisoning of our soil and water. Thousands of acres of land in California have already been irrevocably damaged by this wanton abuse of nature. Thousands more will be lost unless growers understand that dumping more poisons on the soil won't solve their problems—on the short term or the long term. Health authorities in many San Joaquin Valley towns already warn young children and pregnant women not to drink the water because of nitrates from fertilizers which have contaminated the groundwater. The growers only have themselves to blame for an increasing demand by consumers for higher quality food—food that isn't tainted by toxics; food that doesn't result from plant mutations or chemicals which produce red, luscious-looking tomatoes—that taste like alfalfa."

—César Chávez, President of the United Farm Workers of America, November 9, 1984.

2. How do you think Rachel Carson's book changed the way members of the agriculture industry assessed the effects of their practices on the environment?

_____

_____

_____

_____

_____

Name: _____

"As concern with the condition of our physical environment has intensified, it has become increasingly clear that we need to know more about the total environment—land, water, and air…Many agency missions, for example, are designed primarily along media lines—air, water, and land. Yet the sources of air, water, and land pollution are interrelated and often interchangeable. A single source may pollute the air with smoke and chemicals, the land with solid wastes, and a river or lake with chemical and other wastes. Control of the air pollution may produce more solid wastes, which then pollute the land or water. Control of the water-polluting effluent may convert it into solid wastes, which must be disposed of on land. Similarly, some pollutants—chemicals, radiation, pesticides—appear in all media."

—President Richard M. Nixon in a letter to Congress, July 9, 1970.

3. How do you think the environmental movement of the 1960s influenced the government's thinking about the environment in general?

_____

_____

_____

_____

_____

"Rachel Carson's influence reaches beyond the boundaries of her specific concerns in Silent Spring. She brought us back to a fundamental idea lost to an amazing degree in modern civilization: the interconnection of human beings and the natural environment. This book was a shaft of light that for the first time illuminated what is arguably the most important issue of our era."

—Vice President Al Gore in the introduction to the 1992 edition of Silent Spring.

4. What do you think today's environmentalists see as the most important idea in Rachel Carson's writings?

_____

_____

_____

_____

_____

_____

_____

_____

Name: _____

Part 2

Instructions: Using information from today's lesson, write a response to the prompt below. (10 points)

Describe how the ideas in *Silent Spring* encouraged people to change the way they assessed political, economic, social, and environmental factors involving resources. Include examples from the quotations examined in this lesson.

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