

TEACHING AMERICAN HISTORY PROJECT

A partnership between Portland State University, Portland Public Schools, the Tigard-Tualatin and Beaverton School Districts, funded by the U.S. Department of Education

2006: Conservation and the Environment

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Unit Title: Conservation and the Environment: Tracing a Movement through History

Target Grade Level: 9th & 10th Grade U.S. History

Approximate Time Needed: 8-10 class periods

Unit Driving Question/Issue: In 2001, while formulating a new national energy policy, Vice President Cheney said: "Conservation may be a sign of personal virtue but it is not a sufficient basis for sound, comprehensive energy policy." Does the history of the environmental and conservation movement tend to support or refute the Vice President's statement?

Unit Overview: Through a series of presentations and exercises, students will identify the key players, events, issues and legislation of the environmental and conservation movement in the United States. A dramatic component will allow students to put "voices" to the many (and often conflicting) perspectives. A final debate will allow students to explore how the historical development of the idea of conservation plays out in public policy today.

Prerequisite Knowledge:

- General knowledge of industrial revolution and how it transformed American life.
- General knowledge of the post-WWII technology boom and suburbanization; also the general demographic trend from rural to urban/suburban.
- General knowledge of the role of energy production in supporting technology innovation and industry.

National History Standards:

Era 7--Emergence of Modern American, Standards 1A and 1B

Era 10--Contemporary United States, Standards 1A, and 2C

Unit Lesson Plans:

1. *Annotated Timeline of the Environmental Movement (1890-2004):* Students will create an annotated timeline including an iconic symbol that will provide background information on the environmental and conservation movement. Creating symbols that represent significant events in the conservation movement will provide students a way to focus on key events and issues that informed the environmental and conservation movement and attending legislation.
2. *Presentation of Timeline:* Sharing information on the annotated timeline with entire class. Students are given the opportunity to present and explain one of their icon creations. Using

the visuals will assist students in understanding the various positions (using paired icons for opposing perspectives) over time.

3. *The Oregon Perspective:* Presentation on various legislation and environmental issues of the Pacific Northwest. This will bring the movement “closer to home” and help students understand how particular issues in Oregon have shaped the state’s environmental policies over time.
 - a. Oregon Atlas Exercise
 - b. Presentation on Oregon and Conservation
 - c. “Pollution in Paradise,” the Willamette River Video
4. *Drama Environmentalism:* Creation of a dramatic dialogue will help student to put “voices” on the many perspectives about the environment and conservation. Who are the stakeholders? What are their opinions/arguments about conservation policy and practice?
5. *Final Debate:* Debating the Unit Question – The production of energy and the extraction of natural resources are what fuels industry and are a matter of intense discussion today. Is Cheney right or wrong? Is a conservation “ethic” necessary – or not – for sound energy policy?

LESSON 1: Environmental Movement Annotated Timeline

Background on the Environmental and Conservation Movement

Objectives:

1. Students will understand the key events, people and issues that made up the environmental and conservation movement in the United States.
2. Students will understand the multi-layered nature of environmentalism – social/cultural, political, economic – and how it developed over time.
3. Students will appreciate the various stakeholder positions on issues concerning the environment and conservation.

Outcome/Goals:

1. Students will be able to identify key federal legislation that shaped how the U.S. government mitigates environmental and conservation concerns and regulates natural resources.
2. Students will be able to link post-WWII changing social patterns (economic prosperity, suburbanization, the “American Dream”) with the reactionary rise in the environmental and conservation movement.
3. Students will understand the evolution of the idea of conservation from management of resources for economic gain (forest management), ideals of wilderness and recreation (creation of National Parks) and increasing concern about pollution, resource degradation and responsibility for preservation of natural resources for the public good.

Time Needed: 2 class periods

Materials:

- Timeline Template (2 sheets)
- Timeline Elements (National & Oregon) Handout
- Colored pencils/tape

Procedures:

1. Quote from VP Cheney: Show quote to class (write on board or create an overhead from the sheet provided here). Students are just asked to think about, not discuss, the quote. We will return to this quote at the end of the unit.
2. Project the timeline template. Explain the instructions for filling in the annotated timeline (explained below).
3. Demonstrate one element (suggest 1901: Roosevelt) by reading the element description, drawing an icon based on student input and asking students to develop a one sentence annotation. Lead a short discussion – who might have been for or against the establishment of the Forest Service?
4. Allow students 2 class periods to work on their timelines (one for National elements and one for Oregon elements). Students may also finish timelines as homework.

Timeline Instructions:

1. Students should tape/glue the timeline template into their notebooks so that it lays side-by-side as an 11x17 sheet.
2. Give each student a Timeline Elements Handout that lists key events, people, issues of the environmental movement at both a national level and incidents relevant to Oregon and the Pacific Northwest.
3. Instruct students that they are to create an iconic symbol based on each (or a select number) of the elements' brief descriptions and also they should develop a one-sentence annotation for each icon. They are to draw the symbol and write the sentence at the appropriate place on the timeline template.
4. Most of the timeline elements contain a description of historical evolution of the issue and/or various opposing viewpoints. In order to create an icon and distill the element into a single sentence, students should be allowed to naturally gravitate to a particular "position."

OPTION: Have students read the timeline elements and select 5 of the elements for the National and another 5 for Oregon to include on their timelines. Even if all of the elements are not selected throughout the class, students will need to read and understand them all in order to select 5 favored elements. Alternatively, you can assign elements in order to make sure that all the elements have at least one student creating an icon/annotation. For *Extra Credit* students can complete all elements.

5. Students should be encouraged to use other resources as available (encyclopedias, internet research, textbooks) in order to expand their knowledge of a selected element or enhance their iconic representation (i.e. what does a spotted owl look like?).
6. Students should turn in their timelines at the end of this lesson. Students should be asked to identify on their timeline one of the icons to present to the class. Teacher should plan for sufficient time to possibly scan the students' selected icons for projection during the presentation (see Lesson #2). The timelines should be returned as soon as possible to be used as reference material for the subsequent lessons.

Assessment: Students will be assessed on the completeness and presentation quality of their timelines. Does the annotation sentence distill adequately at least one primary issue/idea from the timeline element description? Does the icon reflect the annotation sentence? Is the timeline neat and readable? Did the student create icons/sentences for all required timeline elements?

Modifications/Extensions:

Extension: Students can select/be assigned one timeline element for further research. Students could prepare a short research paper and deliver a 5-10 minute presentation to class.

Extension: Icons and sentences could be enlarged and, using butcher block paper, a large/long timeline could be created and displayed in the classroom or on the outside hallway walls.

“Conservation may be a sign of personal virtue but it is not a sufficient basis for sound, comprehensive energy policy.”

Vice President Dick Cheney, 2001 April 30

This quote is from a speech that Cheney gave before the Associated Press in Toronto, Ontario.

Annotated Timeline of the Environmental and

NATIONAL

OREGON

1890 **1900** **1910** **1920** **1930** **1940**

Directions: Tape/glue each sheet of the annotated time line side-by-side in your notebook so that you have an 11x17 page when opened. For the assigned timeline elements create an iconic symbol at the appropriate place on the timeline. Below each symbol on the timeline write a one-sentence description of the timeline element.

Conservation Movement in American History

NATIONAL

OREGON

1950 1960 1970 1980 1990 2000

Directions: Tape/glue each sheet of the annotated time line side-by-side in your notebook so that you have an 11x17 page when opened. For the assigned timeline elements create an iconic symbol at the appropriate place on the timeline. Below each symbol on the timeline write a one-sentence description of the timeline element.

ENVIRONMENTAL AND CONSERVATION MOVEMENT TIMELINE ELEMENTS

NATIONAL CONTEXT:

1892: Sierra Club

The Sierra Club was founded on May 28, 1892 with 182 charter members. John Muir, America's most famous naturalist and conservationist, was elected its first President. In its first conservation campaign, the Club led the effort to defeat a proposed reduction in the boundaries of Yosemite National Park. Since its inception the Sierra Club, still dedicated to the exploration and preservation of American wilderness and wildlife, has sponsored extensive outings and hiking programs throughout the United States and internationally. It also sponsors public talks, exhibitions, and environmental activism. Through its publication of books, its magazines *The Sierra* and *The Planet*, its newsletter on environmental issues *The National News Report*, and its World Wide Web site, the Sierra Club continues to cultivate and inform its support base of concerned citizens, moving them toward environmental stewardship and political activism, thereby applying political pressure and shaping environmental policy. The Club claims over 750,000 current members and supporters and remains a strong force in the social and political arenas.

1901: President Theodore Roosevelt

Roosevelt was the first President to focus on conservation issues and bring them to the front of the Nation's progressive political agenda. Environmental issues have remained a part of the political agenda to this day. Roosevelt spent much of his youth in the west and valued the encounters he had with nature. He believed that preserving nature was a duty for a future that was bound to be ever more industrial and urban. Toward these ends Roosevelt crafted conservation policies guided by a "resource management" approach that attempted to use public natural resources to affect the development of the whole nation and not just the enrichment of only a few. Roosevelt pushed the New Lands Reclamation Act through Congress in 1902 that allowed the sale of federal land in order to develop water resources for the arid west, fundamentally altering the landscape and economies of the Desert southwest. He hired his friend and noted conservationist, Gifford Pinchot, as director of the Forest Service. Under Pinchot, the Forest Service regulated logging practices and expanded the National Forest system by 150 million acres. President Roosevelt also used Executive Orders to create 5 new national parks, 51 bird refuges, and 5 wildlife refuges.

1916: National Park Service

In 1872 Congress approved legislation that created Yellowstone National Park. For the first time the government had acted to preserve federal land for a purpose other than commercial extraction of raw materials. Soon after, additional parks were added including Sequoia, Yosemite and

Mount Rainier National Parks. By 1916 Congress identified a need for a centralized administration agency to manage the growing park acreage and created the National Park Service, a Federal agency charged with the duty to “conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in future generations.” The Park Service is a unit within the Department of the Interior and provides for the management of all national parks, monuments, and historical sites. Through the years, the Park system has grown to embrace over 21 million acres of land and water including 25 national parks, 80 national monuments, and 45 national historical parks and battlefields.

1934-1939: The Dust Bowl

Large areas of the central plains from Texas to Canada experienced devastating drought and related choking dust storms during the 1930s. Dust storms literally turned the sky black. The dust storms that dumped dirt-stained red snow on regions as far removed as New York were a result of industrialized farming practices that used mechanized equipment to remove large swaths of native grasses from the Great Plains in order to plant hundreds of thousands of acres of wheat and corn. During drought years, the crops failed, the soil dried up and simply blew away. The Dust Bowl displaced perhaps a half million Central Plains farmers including 15% of the total population of Oklahoma. The word “Okies” came to describe all of the Dust Bowl’s displaced farmers. John Steinbeck also immortalized their harrowing struggles in the iconic Depression era novel, *The Grapes of Wrath*. The Federal Government attempted to address the catastrophe by various means including the creation of the Soil Conservation Service in 1935 (now the Natural Resources Conservation Service, an agency of the U.S. Department of Agriculture). The Dust Bowl was the first instance of the government implementing programs to protect the nation from damage to the environment that threatened life and property.

1942: The Manhattan Project

During WWII the United States raced to build atomic weapons, hoping to beat the Germans. Under the Manhattan Project, secret atomic energy communities were created almost overnight in Oak Ridge, Tennessee, at Los Alamos, New Mexico, and in Hanford, Washington, to house the workers and gigantic new machinery needed to produce the bomb. The weapon itself was built at the Los Alamos laboratory, under the direction of physicist J. Robert Oppenheimer. The successful Manhattan Project resulted not only in the manufacture of the two atomic weapons used on Japan that ended the War (the first bomb was dropped on Hiroshima on 8/6/1945), but also ushered in a menacing half century of nuclear Cold War with the Soviet Union, which had quickly emerged as an atomic power as well. Aside from its use as a military weapon, in the 1940s and 1950s the potential of atomic technology to produce domestic energy was seen as a singular triumph of human ingenuity. Leaders spoke of electricity so cheap it would be impossible to meter. Nuclear power plants were built around the country and around the world. Swept under the rug were environmental concerns about what to do with super-heated water and spent nuclear fuel rods.

1946: Levittown

Levittown was the first and most iconic post-WWII planned community. Levittown ultimately consisted of over 10,000 identical homes built on 1,200 acres of Long Island farmland – 30 miles from downtown Manhattan. Levittown offered the post-war citizen a chance to own their own home and escape the pressures and annoyances of city life. A mere \$7999 bought a family privacy, property, a lawn, and safe streets with neighbors just like themselves. For a generation of “baby-boomers,” post-war suburbs offered the fulfillment of the American dream of prosperity and idyllic family life. However, rapid growth of sprawling suburbs forever changed the landscape of the country, further enslaved people to their automobiles, and ultimately changed the way many American’s view the environment. Ironically, the destruction of vast rural green and natural spaces by suburban sprawl also nurtured a generation of Americans who developed a new nostalgia and value for the pristine natural environments on which their childhood homes had often bordered. These Americans formed the backbone of the emerging environmental movement.

1956: Federal Highway Act

By the late 1930s, the pressure for construction of transcontinental superhighways was building. It even reached the White House, where President Franklin Roosevelt repeatedly expressed interest in construction of a network of highways as a way of providing more jobs for people out of work during the Depression. Roosevelt authorized development of a “Master Plan for Free Highway Development.” After WWII, the pressures of suburbanization made transportation an urgent public issue. Americans had long dreamed of something better than two-lane highways that routed motorists through the stop-and-go traffic of cities and trapped them behind creeping trucks. By the early 1950s, they were fed up with roads designed for Model-A Fords; they wanted to enjoy their new V-8 engines and the 50 million new cars that were sold between 1946 and 1955. The solution was the Federal Highway Act of 1956, creating a national system of interstate and defense highways. The legislation included a program to build 41,000 miles of freeways, subverting funds from the less popular mass transit sector and making the automobile the preferred method of travel for the vast majority of Americans to this day. Celebrating its 50th anniversary (in 2006), this network of highways is now called the Eisenhower Interstate Network, in memorial to President Eisenhower, who tirelessly pushed the Act through Congress.

1962: Silent Spring

Published in 1962, Rachel Carson’s book *Silent Spring* alerted the nation to the dangers of chemical pollution. In particular she warned of the effects that the indiscriminant use of pesticides was having on wildlife.

“Only within the moment of time represented by the present century has one species – man – acquired significant power to alter the nature of his world. During the past quarter century this power has not only increased to one of disturbing magnitude but it has changed in character. The most alarming of all man’s assaults upon the environment is the contamination of air, earth, rivers, and sea with dangerous and even lethal materials...The ‘control of nature’ is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was

supposed that nature exists for the convenience of man. The concepts and practices of applied entomology for the most part date from that Stone Age of science. It is our alarming misfortune that so primitive a science has armed itself with the most modern and terrible weapons, and that in turning them against the insects it has also turned them against the earth.”

1962: Little Boxes

Melva Reynolds’ famous poem and song reflect the beginnings of a middle class reaction to the consumerism and its attendant cultural conformity of the immediate post-WWII years. Can you hear in this poem the stirrings of a counter culture movement reacting against suburbanization and embracing a romantic regard for lives lived in harmony with nature?

Little boxes on the hillside,
Little boxes made of ticky tacky
Little boxes on the hillside,
Little boxes all the same,
There's a green one and a pink one
And a blue one and a yellow one
And they're all made out of ticky tacky
And they all look just the same.

And they all play on the golf course
And drink their martinis dry
And they all have pretty children
And the children go to school,
And the children go to summer camp
And then to the university
Where they are put in boxes
And they come out all the same.

And the people in the houses
All went to the university
Where they were put in boxes
And they came out all the same
And there's doctors and lawyers
And business executives
And they're all made out of ticky tacky
And they all look just the same.

And the boys go into business
And marry and raise a family
In boxes made of ticky tacky
And they all look just the same,
There's a green one and a pink one
And a blue one and a yellow one
And they're all made out of ticky tacky
And they all look just the same.

1964: Wilderness Act

With passage of the Wilderness Act of 1964, the Federal Government proceeded to preserve some of the country's last remaining wild places in order to protect their natural processes and values from encroaching residential and industrial development. The Wilderness Act established the National Wilderness Preservation System, now comprising more than 105 million acres and containing wild places from all regions of the country. The Act also put in place an innovative public process for expanding the system. Essentially, the Act shifted much of the responsibility for establishing wilderness areas from the federal land management agencies and put it into the hands of the American people and the legislative process. From 1964 on, rather than having to wait for land management agencies to make recommendations through a time-consuming administrative process, citizens could develop their own wilderness proposals and submit them directly to a member of Congress. This has greatly influenced how conservation activists work within the political system and has had a profound impact on the process of wilderness conservation and preservation in the United States.

1969: Cuyahoga River

In 1969, polluted debris and oil slicks on the Cuyahoga River in Cleveland caught fire. Flames climbed as high as five stories until fireboats brought it under control. The fire was attributed to wastes dumped into the river by the waterfront industries. The City of Cleveland was not particularly concerned about this event. What is not as well known is that this was not the first time there had been a fire on the Cuyahoga. There are documented reports from 1868, 1883, 1887, 1912, 1922, 1936, 1941, 1948 and 1952. Nor was the Cuyahoga River the only river to burn during the 1960s. Pollutants fueled fires on a river in the Baltimore Harbor, the Buffalo River in upstate New York and the Rouge River in Michigan, just to name a few. However, a month after the 1969 Cuyahoga fire, *Time Magazine* ran a story with this scathing tone: "Some river! Chocolate-brown, oily, bubbling with subsurface gases, it oozes rather than flows. Anyone who falls into the Cuyahoga does not drown, he decays." The publicity embarrassed locals and government mightily; the increasingly mocked Cuyahoga river, under the "Burn On River, Burn On" spotlight of a song by Randy Newman, became a poster-child for citizen environmentalists who helped focus the nation's attention on clean water issues which ultimately led to the passage of the Clean Water Act in 1972.

1970: Earth Day

In the turbulent 1970s, Americans found one issue they could agree on. In the 1970s, resource conservation grew into a multifaceted environmental movement. Environmentalism dealt with serious problems. It was broad enough for both scientific experts and activists, for both Republican Richard Nixon and Democrat Jimmy Carter. Environmentalism gained strength among Americans in 1970. On April 22nd two thousand colleges and universities, ten thousand primary and secondary schools, roughly 20 million people, took part in the first Earth Day, an occasion first conceived by Wisconsin Senator Gaylord Nelson. Earth Day gained a grassroots following in towns and cities across the country. New York closed Fifth Avenue to automobiles for the day. Companies touted their environmental credentials. Its basic message seemed to be summed up in the much-repeated phrase, "people are the problem", or in a more creative variation on the same theme: "We have met the enemy, and he is us" (introduced on a 1970 Earth Day poster).

1971: Environmental Protection Agency

The American establishment had been looking for a safe and respectable crusade to divert the idealism and discontent of the 1960s counter-culture movement. Now the mainstream media discovered the ravaged planet. So did a politically savvy President Nixon. An expedient pro-environmental stance, he believed, would attract some of the anti-Vietnam war constituency to his party. Nixon had already signed the National Environmental Policy Act on January 1, 1970. In 1971 Nixon created the Environmental Protection Agency to manage and enforce the growing number of environmental laws. The rest of the Nixon years brought legislation on clean air, clear water, pesticides, hazardous chemicals, and endangered species that made environmental management and protection part of governmental routine. The EPA today engages in research, compliance monitoring, and the setting and enforcement of national environmental and pollution standards. Today it also administers the "Superfund" Act of 1980, an act aimed at restoring toxic

waste sites by making the responsible parties finance their cleanup. It is one of the most powerful government agencies as it can issue statements on the impact of operations of other federal agencies that are detrimental to environmental quality and levy hefty sanctions on both public and private institutions in violation of environmental laws.

1973: Endangered Species Act

In 1966 Congress passed the Endangered Species Preservation Act which allowed listing of only native animal species as endangered and basic criteria for the protection of these species. While limited in its means for the protection of these native species, the Act did bring together the Departments of Interior, Agriculture, and Defense in an attempt to preserve the habitats of listed species. The Endangered Species Conservation Act of 1969 was subsequently passed to provide additional protection to species in danger of "worldwide extinction." Import of such species was prohibited, as was their subsequent sale within the U.S. A pivotal 1973 conference in Washington DC led to the signing of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which restricted international commerce in plant and animal species believed to be actually or potentially harmed by trade. Later that year, the U.S. passed the Endangered Species Act of 1973, which combined and considerably strengthened the provisions of its predecessors, and broke some new ground. Its principal provision stipulated that ALL Federal agencies were required to undertake programs for the conservation of endangered and threatened species, and were prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat." Provisions in the Endangered Species Act remain the most potent weapon for conservation activists.

1979: Three Mile Island

The accident at the Three Mile Island Unit 2 (TMI-2) nuclear power plant near Middletown, Pennsylvania, on March 28, 1979, was the most serious in U.S. commercial nuclear power plant operating history, even though it led to no deaths or injuries to plant workers or members of the nearby community. The sequence of events -- equipment malfunctions, design related problems and worker errors -- led to a partial meltdown of the TMI-2 reactor core but only very small off-site releases of radioactivity. Nonetheless, it brought about sweeping changes involving emergency response planning, reactor operator training, human factors engineering, radiation protection, and many other areas of nuclear power plant operations. It also caused the U.S. Nuclear Regulatory Commission (NRC) to tighten and heighten its regulatory oversight. Though the resultant changes in the nuclear power industry and at the NRC had the effect of enhancing overall safety, the incident led to increasing public distrust about the safety of nuclear energy in general. Anti-nuclear activists have used nuclear plant accidents and public concern to advocate a phase-out of nuclear power, citing safety issues for both people and the environment and pushing instead for investment in renewable sources of energy (solar, wind).

1989: Exxon Valdez

The Exxon Valdez oil spill in Prince William Sound, Alaska was the most devastating environmental disaster to occur at sea in history. Its remote location (accessible only by helicopter and boat) made government and industry response efforts difficult, and severely

strained existing plans for disaster response. The region is a habitat for salmon, sea otters, seals, and sea birds. On March 23, 1989, the oil tanker *Exxon Valdez* departed from the Valdez oil terminal in Valdez, Alaska, heading south through Prince William Sound, with a full load (52 million gallons) of crude oil. At 12:04 a.m. on March 24, the vessel hit Bligh Reef. The spilled oil affected 1,900 km of Alaskan coastline. Some seventeen years after the incident, Exxon is still appealing the court judgments (\$287 million for actual damages and \$4.5 billion for punitive damages). Both the long and short-term effects of the oil spill have been studied comprehensively. Thousands of animals died immediately; the best estimates include 250,000 sea birds, 2,800 sea otters, 300 harbor seals, 250 bald eagles, up to 22 orcas, and billions of salmon and herring eggs. In the long term, reductions in population have been seen in various ocean animals, including stunted growth in pink salmon populations. Sea otters and ducks also showed higher death rates in following years, partly because they ingested contaminated creatures. Researchers say some shoreline habitats, such as contaminated mussel beds, could take up to 30 years to recover.

1997: Kyoto Protocol

The Kyoto Protocol is an agreement made under the United Nations Framework Convention on Climate Change (UNFCCC). Countries that ratify this protocol make a commitment to reduce their emissions of carbon dioxide and five other greenhouse gases (known to cause warming of the atmosphere), or engage in emissions trading if they maintain or increase emissions of these gases. The Intergovernmental Panel on Climate Change (IPCC) has predicted an average global rise in temperature of 1.4°C (2.5°F) to 5.8 °C (10.4°F) between 1990 and 2100. Current estimates indicate that if successfully and completely implemented, the Kyoto Protocol will mitigate that increase between 0.02 °C and 0.28 °C by the year 2050. The treaty was negotiated in Kyoto, Japan in December 1997. The agreement came into force on February 16, 2005 following ratification by Russia on November 18, 2004. As of July 2006, a total of 164 countries have ratified the agreement (representing over 61.6% of total emissions from Annex I – developed – countries). Notable exceptions include the United States and Australia. Other countries, like India and China, which have ratified the protocol, are not required to reduce carbon emissions under the present agreement due to their development status (they are not yet considered Annex I countries). The USA, although a signatory to the protocol, has neither ratified nor withdrawn from the protocol. The signature alone is mostly symbolic, as the protocol is non-binding over the United States unless ratified. President G.W. Bush has indicated that he does not intend to submit the treaty to Congress for ratification, not because he does not support the general idea, but because of the strain he believes the treaty would put on the U.S. economy with emphasis on the uncertainties about the causes of climate change which he asserts are present in the scientific community. He is also not happy with certain aspects of the treaty, primarily the exemptions given to developing countries.

OREGON CONTEXT:

1929: Oregon Reforestation Tax Law

Oregon has been in the forefront nationally and even internationally in forest management practices. As early as 1911 the Oregon Department of Forestry was established to reduce damage from forest fires on private lands. The 1929 Oregon Reforestation Tax Law, the forerunner of other reforestation laws in the 1940s and 1970s, was considered one of the most progressive forestry laws in the United States. At the turn of the century Oregon logged mostly old growth, mature trees and companies were required to pay annual property tax on their timber land. After clearing, owners usually left land to natural regeneration (or more often severe erosion). Or, alternatively, they converted it to farm or urban use. Many owners considered logged land so worthless and the payback from future timber harvests so far in the future that they stopped paying the annual property tax. The property reverted to county ownership via foreclosure. To stop these foreclosures, and to encourage replanting, the 1929 Legislature passed the Oregon Reforestation Tax Law. The Law required the Department of Forestry to classify private lands for reforestation purposes. Owners of land classified for reforestation were exempted from annual property taxes, and instead paid a small annual forest fee and surtax on any harvested forest products. In essence, the new tax let owners choose to pay most of their timber taxes when they cut their trees, instead of each year as the trees grew, encouraging investment in reforestation and reharvesting. This Law endured with few modifications until 1977, when it was repealed and replaced.

1937: Timberline Lodge

Timberline Lodge is a mountain lodge at 6,000 ft (1,800 m) elevation on the south side of Mount Hood in Oregon. On June 14, 1936, at the brutal height of the Great Depression, ground was broken for a project unique in America. Timberline Lodge was built entirely by hand, inside and out, by unemployed skilled craftspeople hired by the Federal Works Progress Administration (WPA). Talented workers used huge timbers and local stone, and placed intricately carved decorative elements throughout the building. The building is a tribute to their skills and a monument to a government which responded not only to the physical needs of its people in a desperate time, but also to the needs of their spirits. The work was done in an amazingly short time. From the first drawings, made in early 1936, to the dedication of the completed Lodge by President Franklin Roosevelt in September, 1937 only 15 months elapsed. In 1978 Timberline Lodge was declared a National Historic Landmark. From Roosevelt's Dedication Speech:

“The people of the United States are singularly fortunate in having such great areas of the outdoors in the permanent possession of the people themselves - permanently available for many different forms of use...Here, to Mount Hood, will come thousands and thousands of visitors in the coming years...these visitors are going to visualize the relationship between the cattle ranches and the summer ranges in the forests...they will understand the part which National Forest timber will play...in northwestern prosperity...Those who will follow us to Timberline Lodge on their holidays and vacations will represent the enjoyment of new opportunities for play in every season of the year...Americans who are fulfilling a very desirable objective of citizenship - getting to know their country better.”

1937: Bonneville Dam

Long before Franklin Roosevelt's New Deal, consideration had been given to developing the economy along the Columbia River by building dams for flood control, irrigation, navigation, and power generation. In 1929, the Army Corps of Engineers prepared a report that recommended 10 dams along the river. No action was taken, however, until the Roosevelt administration. In 1934, two huge projects were started: Grand Coulee Dam in north central Washington State and Bonneville Dam, which would span the river between Washington and Oregon at a spot 80 miles upstream from Portland. Construction of the Bonneville Dam began in June 1934, and took three years. The construction drew 3,000 workers. Marketing the electricity was a politically sensitive issue. Roosevelt was determined to keep the dam as a public source of power, but private interests opposed government involvement in what they viewed as private industry. Public power advocates carried the day with the passage of the Bonneville Project Act, which Roosevelt signed on August 20, 1937. Commercial power began to flow from its generators in 1938. The 2,690-foot long and 197-foot high dam was a mixed blessing. For many American Indians who had lived along the Columbia River for centuries, the dam was a disaster. The reservoir behind the Bonneville Dam flooded their villages and inundated traditional fishing locations. Migrating salmon also encountered obstacles that were only partially mitigated by fish ladders. Controversy over the pricing of Bonneville's electric power continues to this day. Pacific Northwest residents view cheap hydroelectric power as an entitlement. People in other parts of the country note that Bonneville and the other dams on the Columbia were built with federal money and that if power were sold at "market rates," people across the country would benefit from the additional profits.

1967: Beach Bill

In 1967 the "Oregon Beach Bill" was enacted under then Governor Tom McCall. It decrees that all land within sixteen vertical feet of the average low tide mark belongs to the people of Oregon. Oregon's Beach Bill guarantees that the public has free and uninterrupted use of the beaches along Oregon's 363 miles of coastline. A state easement exists up to the line of vegetation. Only one other state, Hawaii, guarantees public access from the surf line to the vegetation line. The Beach Bill also directs that the entire ocean shore be administered as a state recreation area. The Oregon Parks and Recreation Department is charged with the protection and preservation of the recreation, scenic, and natural resource values found on Oregon's coastal shores.

1970: Scenic Waterways Act

In 1970 citizens pushed for and voted in "The Scenic Waterways Act". The Scenic Waterways Act was designed to protect and enhance the natural, esthetic, scenic, fish and wildlife, scientific, and recreational values of segments of designated rivers and ensure that they remain free-flowing without dams or other impediments. Within the Act it is stated, "The people of Oregon find that many of the free-flowing rivers of Oregon and lands adjacent to such rivers possess outstanding scenic, fish, wildlife, geological, botanical, historic, archeological, and outdoor recreational values of present and future benefit to the public." The Scenic Waterways program was a new concept in Oregon and across the entire nation. It mandated government control over vast

reaches of river resources for purely conservation purposes setting up political controversies over the proper management of these resources for the “public” good (economic vs. recreation).

1971: Bottle Bill

The Oregon Bottle Bill of 1971 was the first container deposit legislation passed in the United States. It requires carbonated soft drink and beer containers sold in Oregon to be returnable with a minimum refund value. The law is credited with reducing litter and increasing container recycling. As a result of the law, items which used to make up around 40% of roadside litter now represent about 6%. But with return rates averaging 90%, its real benefit is in waste reduction and resource conservation, particularly for aluminum. By comparison, states without similar bills recycle on average only 28% of their containers. Per the law, beverage distributors retain all deposits not reclaimed by consumers. The bottle issue was much larger than it appears. Prior to the 1940s returnable bottles were the norm because it was cheaper for bottling companies to collect and wash old glass bottles than buy new ones. But after World War II, the steel and aluminum industries started to promote cheap metal disposable beverage cans. By 1968 alone, beer and soda companies were responsible for 173 million bottles and 263 million cans in Oregon resulting in a sharp increase in litter and environmental hazard. In 1970, McCall initiated a campaign for the Bottle Bill that called for banning non-returnables containers and putting a 5-cent deposit on all soda and beer bottles. The Bill passed in 1971 and after 30+ years it is still the most effective recycling incentive.

1971: Forest Practices Act

The Oregon Forest Practices Act of 1971 (effective 1972) had its origins in progressive forestry legislation in Oregon dating back before 1941. The Forest Conservation Act of 1941 (based on the 1929 Oregon Reforestation Tax Law) was enacted to require reforestation of logged lands with fees collected from those who did not follow the law to cover state expenses of reforestation. In response to social activism and public concern about impacts of forest practices beyond reforestation, leaders of the forestry sector (private and public) began to develop the Nation's first comprehensive forest practices act in the late 1960's. The Oregon Forest Practices Act of 1971 covered most forest operations and provided protection for soil, air, water, fish, and wildlife. The overall administration of the FPA was given to the Oregon Department of Forestry. Of note is that the Forest Practices Act (FPA) provided for field inspections with governmental authority to shut an operation down for violations and with financial recourse in the form of penalties and property liens for corrective actions. In spite of the potential punitive nature of the act, the forest industry was a major supporter and saw it as a way to control the "few bad actors" in the forestry sector. Oregon's Forest Practices Act has been cited and emulated as progressive and effective legislation and rule administration for forest resources.

1973: Senate Bill 100 and Land Use Planning

In Oregon, no moment looms larger in recent history than Governor Tom McCall's rousing land use speech in January 1973. "There is shameless threat to our environment and to the whole quality of life – the unfettered despoiling of the land," he told the state legislature. "Sagebrush subdivisions, coastal condomania, and the ravenous rampage of suburbia in the Willamette

Valley all threaten to mock Oregon's status as the environmental model for the nation...The interests of Oregon for today and in the future must be protected from grasping wastrels of the land." The direct consequence of McCall's speech was Oregon's state system of land use planning. In 1973 the legislature established a mandatory planning program administered by a state Land Conservation and Development Commission (LCDC). The legislation, Senate Bill 100, requires EVERY Oregon city and county to prepare a comprehensive growth plan that establishes an urban growth boundary and conforms to a set of statewide planning and development goals. The plans provide the legal support for zoning and other specific land use regulations. The movement for state-mandated planning originated in efforts by Willamette Valley farmers to protect their livelihoods and communities from urban engulfment, with consequent disruptive effects on agriculture. The final land use measure drew overwhelming support from all parts of the Willamette Valley, however there was little initial support from eastern Oregon or the coast whose residents worried more about the lack of development rather than its uncontrollability. Metro, the regional elected governing body, the 2040 Plan and Portland's Urban Growth Boundary are the direct result of this legislation.

1990: Spotted Owl

For hundreds of years, a handsome, dark-brown owl with white spots has made its home in the lush, "old-growth" forests of the Pacific Northwest. Under the multilayered canopies of these 200-year-old forests, the owl, known as the northern spotted owl, has fed off the rich plant and invertebrate life created by decaying timber and has nested in the cavities of old trunks. But the towering cedars, firs, hemlocks, and spruces which have served as the owl's habitat, also have become a primary source of timber for a multi-billion dollar logging industry. Over the last 150 years, as a result of heavy logging, these ancient forests have dwindled. Only about 10% of the forests remain, most on federally owned lands. And as the forests have dwindled, so too has the number of spotted owls. Biologists estimate that only 2,000 pairs survive today. The plight of the northern spotted owl hit the media and mass public in the mid-1980s. It soon became the mascot for the growing conservation movement, sparking intense controversy. In 1986, a worried environmentalist group petitioned the U.S. Fish and Wildlife Service to list the owl as an "endangered species," a move that would bar the timber industry from clearing old growth forests. In June 1990, after years of heated negotiation and litigation between the government, environmentalists, and the timber industry, the northern spotted owl was declared a threatened species. Under this provision, timber companies are required to leave at least 40% of the old-growth forests intact within a 1.3 mile radius of any spotted owl nest or activity site, a provision vehemently opposed by the timber industry. Industry representatives claimed that the measure would leave thousands of Northwest loggers and mill workers jobless. Environmentalists argued that society has a fundamental obligation to preserve this rare species and the wilderness it inhabits.

2004: Ballot Measure 37

Ballot Measure 37, passed in 2004 by a 60-40% vote, adds a new statute to Oregon regulations. As specified in the measure, the owner of private real property (land) is entitled to receive compensation when a land use regulation (e.g. zoning) is enacted after the owner purchased the property – if the regulation restricts the use of the property thereby reducing its fair market value.

If a property owner proves this claim then the government responsible for the land use regulation (city, county or state) will have a choice: pay the owner of the property an amount equal to the reduction in value or modify, change or not apply the regulation to the owner's property. The measure provides no new revenue source for potential compensatory payments required under this measure. Most municipalities, therefore, are forced to waive all land use regulations on Measure 37 claims as funds simply do not exist to finance any compensation. "Property Rights" advocates assert that it is not fair to regulate the use of private land for public benefit at the land-owner's expense. "Smart-Growth" advocates insist that Oregon's land use laws are designed to protect our neighborhoods and other land resources from inappropriate and potentially damaging unfettered development by private parties that is not in the public interest. Measure 37 follows a similar measure (#7) that passed in 2000 but was subsequently overruled by the Oregon Supreme Court on technicalities. Ballot Measure 37 was also ruled in violation of the Oregon Constitution by a Marion County Circuit Court Judge citing that the measure created an exempted and therefore unconstitutionally privileged group of land-owners. The Measure was subsequently upheld by the Oregon Supreme Court. To date, thousands of Measure 37 claims have been filed with city, county and regional municipalities (70% of the claims involve industrial and/or high-density residential development on prime farm and forestry land affecting roughly 120,000 acres to date). The extent of the impact – on land use policy, future suburban development, natural resource encroachment and/or endangerment – has not been determined.

2005: Roadless Rule

In 2001, President Clinton, in one of his last acts as President, signed the Roadless Rule. This rule severely restricted all activities (including logging and potentially damaging recreational activities) on inaccessible and sensitive wilderness areas designated "roadless." Despite strong opposition by states and in Congress, President G.W. Bush suspended the Roadless Rule (it had not yet gone into effect when Bush entered office) and provided federal exemptions for profitable logging activities in sensitive areas such as the Tongass National Forest in Southeast Alaska. Several federally-owned areas in Oregon were also auctioned to logging interests (Mike's Gulch near Medford in particular). President Bush officially repealed the Roadless Rule on May 13, 2005. In response, on August 28, 2005, Governor Kulongoski on behalf of the State of Oregon joined California, New Mexico and Washington State in filing a lawsuit challenging the Bush Administration's appeal of the Roadless Rule. Oregon has almost 2 million acres of inventoried roadless areas. The Wilderness Society and 19 other conservation groups as well as several Native American Tribes (notably the Nez Perce) also filed similar lawsuits. The CA-OR-NM-WA case is scheduled to be heard in August/September 2006.

Creating Timelines: Environmental and Conservation Movement Timeline Rubric

Student Name: _____

CATEGORY	4	3	2	1
Content/Symbolic Icons	Icons were produced for 75% (or more) of the required elements.	Icons were produced for 75% of the required elements.	Icons were produced for 50-75% of the required elements.	Less than 50% of the required timeline elements were represented by an icon.
Readability	The overall appearance of the timeline is pleasing and easy to read.	The overall appearance of the timeline is somewhat pleasing and easy to read.	The timeline is relatively readable.	The timeline is difficult to read.
Learning of Content	The student is able to choose and accurately distill into a single sentence over 75% of salient issues and ideas represented in each timeline element.	The student is able to choose and accurately distill into a single sentence ~75% of salient issues and ideas represented in each timeline element.	The student is able to choose and accurately distill into a single sentence ~50% of salient issues and ideas represented in each timeline element.	The student does not demonstrate clear understanding of issues and ideas in the timeline elements.

LESSON 2: Presenting the Conservation Timeline

Objectives:

1. Students will gain skill in presenting a concise idea via use of iconic symbols.
2. Students will gain skill in compiling information on a diverse subject.
3. Students will understand that there are a myriad of different viewpoints regarding environmental and conservation issues.
4. Students will appreciate the fact that we bring our own viewpoints to the historical interpretation of events and issues.

Outcomes/Goals:

1. Students will be able to use the icons to “pair” up and compare opposing viewpoints using the note-taking template thereby gaining an understanding that most of the salient environmental and conservation issues presented in the timeline have equally valid pro and con positions.
2. Students will appreciate the complex and interconnectedness of issues and events (social, political, economic) that spurred and continue to feed the environmental and conservation movements and counter-movements.
3. Students will appreciate that the environmental and conservation movement has changed over time – reflecting changing attitudes of activists, the populous and government.

Time Needed: 1 to 1-1/2 class periods (depending on number of students)

Materials:

- Completed Timeline Templates
- Timeline Elements Handout
- Note-Taking Template Handout (4-pages double-sided)

Procedures:

1. Students will be asked to pick one of their timeline icons/sentences to present to the class.
2. Students will be given 2-3 minutes to explain their icon using the following guidelines:
 - a. Read your annotation sentence
 - b. Identify the Timeline Element it is representing.
 - c. What person/place/thing/idea/issue is your icon attempting to capture?
 - d. What are the symbolic elements of the icon? Why did you choose them?
 - e. Why did you select this element to present to the class?
3. Other students should not enter into a discussion at this point. Students should, instead, be encouraged to simply listen objectively to all the different viewpoints represented in the icons. Subsequent lessons will provide opportunities for discussion and debate.

4. Students should take detailed notes on each presentation using the 8-page Notes Template. Depending on how you decide to structure the lesson (assign all elements or a limited number, allow the students to choose which elements to symbolize/present, etc.), not all the timeline elements will have icons created and/or presented.

OPTION: Use a long butcher block of paper to create a large timeline for the wall. Have students create icons/sentences on separate pieces of paper (1/4 sheet of paper) and tape them to the appropriate place on the large timeline. This way students can view all the icons together as only a select few will actually be presented in greater depth. Students could be required to complete their 8-page Notes Template using this timeline.

NOTE: During the presentations, if the icons are not displayed on the wall, ideally you should try to project the icons so the rest of the students can see them enlarged (if the technology is available to scan and project). You can also enlarge the images using a Xerox machine and create overhead projections (although they would not be in color).

Assessment:

1. Students will be assessed on their ability to articulate their icon's purpose/meaning in the time allotted. Did the student cover all the guidelines?
2. Students will be assessed on the completeness of their Note-Taking Template. Did the student stick to the information as presented or inject opinion?

Modifications/Extensions:

Extension: Have students pick one of the icons presented (not their own) and write a short opinion piece. Did they understand what the icon was trying to represent? How did it make them feel (motivated, angry, enlightened)? Do they agree or disagree with the "message" the icon is trying to portray? Why or why not?

ENVIRONMENT & CONSERVATION ICONS: NOTES

Name _____ Date _____

<i>Timeline Element</i>	<i>Describe Icon</i>	<i>Describe Viewpoint</i>
1892: Sierra Club	1. 2. 3.	1. 2. 3.
1901: Roosevelt	1. 2. 3.	1. 2. 3.
1916: National Park Service	1. 2. 3.	1. 2. 3.
1929: Oregon Reforestation Law	1. 2. 3.	1. 2. 3.

<i>Timeline Element</i>	<i>Describe Icon</i>	<i>Describe Viewpoint</i>
1934: Dust Bowl	1. 2. 3.	1. 2. 3.
1937: Timberline Lodge	1. 2. 3.	1. 2. 3.
1937: Bonneville Dam	1. 2. 3.	1. 2. 3.
1942 Manhattan Project	1. 2. 3.	1. 2. 3.

<i>Timeline Element</i>	<i>Describe Icon</i>	<i>Describe Viewpoint</i>
1946: Levittown	1. 2. 3.	1. 2. 3.
1956: Federal Highway Act	1. 2. 3.	1. 2. 3.
1962: Silent Spring	1. 2. 3.	1. 2. 3.
1962: Little Boxes	1. 2. 3.	1. 2. 3.

<i>Timeline Element</i>	<i>Describe Icon</i>	<i>Describe Viewpoint</i>
1964: Wilderness Act	1. 2. 3.	1. 2. 3.
1967: OR Beach Bill	1. 2. 3.	1. 2. 3.
1969: Cuyahoga River	1. 2. 3.	1. 2. 3.
1970: OR Scenic Waterways Act	1. 2. 3.	1. 2. 3.

<i>Timeline Element</i>	<i>Describe Icon</i>	<i>Describe Viewpoint</i>
1970: Earth Day	1. 2. 3.	1. 2. 3.
1971: Environmental Protection Agency	1. 2. 3.	1. 2. 3.
1971: OR Bottle Bill	1. 2. 3.	1. 2. 3.
1971: OR Forest Practices Act	1. 2. 3.	1. 2. 3.

<i>Timeline Element</i>	<i>Describe Icon</i>	<i>Describe Viewpoint</i>
1973: Endangered Species Act	1. 2. 3.	1. 2. 3.
1973: OR SB 100 Land Use Bill	1. 2. 3.	1. 2. 3.
1979: Three Mile Island	1. 2. 3.	1. 2. 3.
1986: Spotted Owl	1. 2. 3.	1. 2. 3.

<i>Timeline Element</i>	<i>Describe Icon</i>	<i>Describe Viewpoint</i>
1989: Exxon Valdez	1. 2. 3.	1. 2. 3.
2004: OR Ballot Measure 37	1. 2. 3.	1. 2. 3.
2005: Roadless Rule	1. 2. 3.	1. 2. 3.

ADDITIONAL NOTES: (Use the blank space on the back of this sheet to record additional notes on any of the icons).

LESSON 3: Oregon and the Environment

Objectives:

1. Students will understand how issues in Oregon and the Pacific Northwest informed and influenced the environmental and conservation movement at the state level.
2. Students will understand how Oregon's historic economic dependence on the timber and agricultural industries influenced environmental attitudes and legislation over time.
3. Students will understand the events and issues that prompted Oregon's shift to a more environmentally-friendly political/social stance in the 1970s.

Outcome/Goals:

1. Students will identify the extent and influence of the timber and agriculture industries in Oregon using revenue and employment statistics.
2. Students will locate areas of high population growth and suburbanization/industrialization pressure and how these areas became the "hotbed" of Oregon's environmental movement.
3. Students will understand how horrific pollution in the Willamette River spurred Oregon's environmentalism in the 1970s.
4. Students will identify the legacy of Governor Tom McCall in "cleaning up" the state and strengthening its environmental laws.

Time Needed: 2 class periods

Materials:

- Oregon Atlas CD (installed on class computers or in a student computer lab)
- Powerpoint Presentation (Conservation in OR.ppt)
- Willamette River Video
- Computer (with Windows Media Player installed) & InFocus Projector

Procedures:

Oregon Atlas Exercise

The Oregon Atlas can be used as a prompt for a class discussion, but also works well as an independent (or small group) worksheet activity as long as student(s) have access to the Atlas in a computer lab.

The following description provides suggestions for using particular Oregon Atlas maps and narrative as well as possible class discussion/worksheet questions.

Familiarize yourself with the maps, charts and narrative in the Oregon Atlas prior to facilitating a class discussion or assigning an Oregon Atlas Exercise.

POPULATION GROWTH IN OREGON:

Human Geography/Oregon Trail – use this trail map and attending charts to discuss the push/pull factors that motivated immigrants/migrants to move westward.

1. Why was the Oregon Trail called the “path of empire”?
Ans: The trail opened up the vast resources of the Oregon Country to occupation and exploitation by pioneers and later official acquisition of the territory by the United States (until statehood the Oregon Country had been jointly claimed by both the U.S. and Great Britain).
2. Using the chart “The Emigrants“ (click on the chart button), identify the time period that saw the most emigrants arrive in the Oregon Country. Discuss why this was so.
Ans: The time period between 1850-1855 saw the most emigration. The Donation Land Act of 1850 allowed settlers up to 320 free acres of prime farmland to homestead.

Human Geography/County Populations – use the second map series in this category [**County Populations 1860-2000**] to look at the pattern of growth in Oregon over time (as a prelude to discussing the influence of the attitudes and politics of the Willamette Valley in particular).

Click on the “PLAY” button to operate the flash animation sequence:

1. Which region of Oregon experienced the most growth from settlement in 1850 through 2000? Discuss why.
Ans: Western Oregon, in particular the upper Willamette Valley (Multnomah, Clackamas, Washington, Lane and Marion counties), experienced the most (and most rapid) growth. The Willamette Valley contained the most productive and therefore coveted agricultural land. The large concentration of the population in this area made it and its political agenda influential in the development of the Oregon Territory.
2. What is the approximate population of Multnomah County (in 1960)? In 2000? *Ans: in 1960 approx. 523,000; in 2000 approx. 642,000.*
3. What is the total population of the State of Oregon in 2000? *Ans: 3,421,399* What is the percentage of the population living in the Willamette Valley? *Ans: 70%*

OREGON ECONOMY: FISHERIES AND TIMBER

The Economy/Labor – use the second map series in this category [**Composition of the Labor Force**] to locate statistics about the agriculture, forestry, fishing labor force. Click on the “Agriculture, Forestry, Fishing Workers” button to look at these statistics.

1. What percentage of the labor force (in 1998) work in the agriculture/forestry/fishing sector?
Ans: 3.5% or 55,834 workers.
2. Oregon’s labor force tripled between 1940 and 1990. Read the narrative and explain why.
Ans: A primary factor in the increased labor force occurred in Oregon’s productive lumber and wood products industry during the housing/suburbanization boom of the 1960s and 1970s.

3. Given your knowledge of the more controversial political/cultural issues that were going on in the 1960-70s, how do you think the timber boom played out in Oregon?

Ans: The housing boom created thousands of stable jobs in the timber/wood products industry in Oregon; at the same time, suburbanization sprawl threatened this very agricultural/forestry base and unfettered extraction of these forest resources spurred environmentalists and conservationists into taking action – using Oregon as a “showcase” for environmental activism. These were conflicts that affected the Willamette Valley in particular and not necessarily rural Eastern/Southern Oregon, but as most of the population lived in the Valley, whatever happened there tended to dominate Oregon politics. However, Oregon had always been a leader in implementing progressive forest-management practices due to the strong industry presence politically, economically and culturally.

The Economy/Wood Products – use this map series to discuss the roll of the lumber and wood products industries in Oregon.

First Map Page (zoom in to an area encompassing the upper Willamette Valley and the mouth of the Columbia River):

1. What are the major wood products industries in the Willamette Valley and along the Columbia River?

Ans: Sawmills and pulp production.

Use the chart on the Second Map Page (turn on “Timber Harvest”) and the Narrative:

2. Explain why Oregon is called the “Persian Gulf of Timber”?

Ans: Oregon is the leading producer of forest products in the nation and has a high percentage of government-owned forest land.

3. Oregon has historically been the leader in progressive and responsible forest management practices. Despite this, what happened in the 1990s to the timber industry in Oregon?

Ans: Contentious national environmental disputes in the 1980s and challenges to the practice of forest management on federal lands (particularly harvesting old-growth forests/spotted owl habitat) resulted in a severe reduction in timber harvests and the loss of timber-related jobs (and jobs in supportive service sectors as well). The net effect of these changes and conflicts was to reduce the total timber harvest by more than half.

4. What did the timber harvest look like in 1988? By 1998?

Ans: In 1988 the Oregon timber harvest was 8.6 billion board feet (of this amount, 4.93 billion board feet [57%] were harvested from federal/BLM land); In 1998 the total harvest was 3.53 billion board feet (with only 455 million board feet [13%] taken from federal/BLM land).

5. What is the implication of this drastic change?

Ans: Public lands have essentially been removed from Oregon’s timber base...influence in the timber industry moved into the private sphere (Boise Cascade, Weyerhaeuser, etc.); private interests are less “controllable” by state mandates as they are driven more by outside economic forces and corporate profit margins. In addition, the more liberal-leaning political influence of the urban centers (Portland, Salem) increased as rural timber-based regions loss jobs and revenue and manufacturing/high tech industries grew in the urban

centers. This paved the way for a “protectionist” attitude toward Oregon’s forest/agricultural resources (as a way to “attract” high-tech companies and workers based on the natural “recreational” opportunities)) rather than the previously predominate “extractive” attitude.

The Economy/Fisheries – use this map and chart series to discuss the role of fisheries, particularly that of salmon, in Oregon’s economy.

Using the first map/chart [**Annual Average Commercial Fish**]:

1. Which two coastal cities are predominant in the fisheries industry?

Ans: Newport at 112,746,000 lbs. and Astoria at 105,012,000 lbs.

Use the second map/chart [**Value & Pounds by Type**]:

2. During the 1970s the commercial fisheries in Oregon relied mainly on harvests of salmon and tuna. What happened in the 1990s?

Ans: A combination of factors resulted in a drastically reduced harvest. The number of salmon returning declined and many of the salmon species were listed as endangered and removed from harvest.

Use the third map/chart [**Columbia River Commercial Landings of Salmon & Steelhead**] – turn on all types to see the full chart:

3. What has been happening to the salmon population in the Columbia River over time? Why might this be happening?

Ans: There has been a drastic decrease in the salmon runs in the Columbia River beginning around 1950. This decline is often attributed to overfishing, trouble in the oceans with food supply, and the damming of the Columbia River limiting access to Salmon spawning grounds.

Using the Narrative:

4. Who manages Oregon’s marine fisheries? How is it different from the timber industry?

Ans: The Pacific Fishery Management Council in conjunction with the federal government and Oregon’s Department of Fish and Wildlife. Management agencies use a variety of techniques to restrict harvesting to within sustainable levels such as restrictions on the use of certain fishing gear, minimum size limits, closed seasons or areas and annual quotas. These agencies retain a level of control over private harvesting of coastal resources not seen in the timber industry and mostly the result of federal legislation and international agreements. There is no control of the degree of timber harvesting on private land except in ancillary ways – such as preventing damage to ground water supply, erosion-control, etc.

LAND OWNERSHIP IN OREGON

The Economy/Land Ownership – use this map series to discuss the extent of public land ownership (state and federal) in Oregon.

Use the second map page in this category [**Land Ownership**] – click on the bullet points to see the extent of ownership and where for the different categories:

1. Who “owns” most of the land in Oregon?

Ans: State and federal government “owns” about 56% of the land in Oregon. The remaining land in private hands consists of the most productive agricultural/timber lands in the Willamette Valley and along the Columbia River.

2. With much of the natural resources in Oregon owned by the government – how does that affect its management?

Ans: “Public” ownership of resources automatically places management responsibility in the hands of state and federal officials and, by default, the public. Shifts in public opinion often are reflected in shifts in management practices. Also, the large amounts of federally-owned land means that national attitudes can affect how land is managed in Oregon. The shift toward environmentalism/conservationism nationally during the 1970s affected Oregon deeply (by taking much of the federal forest land out of commission for harvesting).

3. What is “receipt sharing” and why is it important?

Ans: Federal and state lands are not subject to government taxation which restricts tax revenue for regions that have large publicly held land. The government has provided for fiscal relief to local municipalities through receipt sharing – sharing a percentage of the sale or lease of natural resources (such as timber). Reducing or eliminating the sale of these resources greatly affects municipalities dependent on receipt sharing revenue to fund social services (such as schools).

Use the third map page in this category [**Private Timberlands in Western Oregon 1991**]:

4. What private company owns the most timberland in Western Oregon? Go to the website of this company. What is the “message” they are trying to portray?

Ans: Weyerhaeuser (at 4.9% or 656,752 acres) at <http://www.weyerhaeuser.com/> - The home page “slogan” says “Forest products contribute to human well-being by providing a renewable resource for shelter, communication and commerce” and prominently displays its Sustainability Index award. This is no doubt an effort at addressing public opinion and its strong push in recent decades for implementing sustainable harvesting practices.

NOTE: If students comment on the “checkerboard” pattern that appears on the map, refer to the information about the PLSS land survey and land grants.

5. Discuss private vs. public timber harvesting.

Ans: Timber harvesting on public lands is subject to an immense forest management practices system put in place via the public/political process. Private timber harvesting is not subject to this government management document. Those who wish to influence how this land is managed, therefore, often have to rely on different kinds of legislation, such as the

Endangered Species Act and the few other acts that actually have sanction power over private activities and interests. Though the practice of clear-cutting has been greatly reduced, of interest lately is the common practice of reforesting harvested areas with a single fast-growing tree species often non-native (to speed up subsequent harvesting). This monoculture leads to an increase in large-scale insect outbreaks as well as larger and more damaging forest fires.

The Economy/Zoning – look at the zoning map to discuss the extent of urban population areas in the upper Willamette Valley. Zoom in to an area that encompasses the Portland-Salem-Eugene corridor. Discuss the implications of the surrounding agricultural and forest lands (both public and privately owned) and how this influences the social-economic-political structure of the Valley.

1. The Portland-Salem-Eugene “corridor” was settled first. What is the primary land use pattern outside the urban areas?

Ans: All the corridor cities are immediately surrounded by rural land zoned for agriculture. The hinterland also contains heavy forested areas.

2. Discuss how this land-use pattern might have influenced the residents of these major cities – their social life, attitudes and politics historically and today.

Ans: The rapid growth of these major cities depended on extraction of the vast resources in the immediate hinterland including agricultural products and timber. The industrial base of the cities centered around serving the needs of agricultural/timber interests both in processing and transporting goods and materials. Even the map of 2000 shows the Willamette Valley as the “breadbasket” of Oregon, surrounded by productive agricultural and timber production. This urban/agricultural dynamic (and conflict) continues to dominate Oregon politics – from the Portland “yuppies” seeking an intimate connection with nature to the farmers, loggers, wineries still making a living off the fertile land. Oregon is a showcase for the difficulties of balancing utilization of natural resources with their preservation.

Conservation in Oregon

Objectives of Powerpoint Presentation:

What brought emigrants to Oregon (free land). Who were they?

What is the legacy of land use in Oregon

Agriculture/Rangeland; Timber/Logging; Coastal Fisheries

Land as an Entitlement (Oregon’s Promise & the Donation Land Act)

Extraction of Resources as the Economic Base

How and where did Oregon grow over time (1860-2000)?

Influence of the Willamette Valley (the Portland, Salem, Eugene Corridor in particular)

Suburbanization post-WWII (rural to urban transition)

What changed in the 1970s?

The Progressive Politics of Tom McCall

“Pollution in Paradise” – **Willamette River Video** (insert hyperlink in presentation)
Land Use Laws/Urban Growth Boundaries

NOTE: The Willamette River Video contains footage from the 1950s – three video clips on points of the river in Portland, Salem and Eugene (about 8 minutes each). Volunteers placed buckets of small fish into the river at various points and timed how long it took for the fish to suffocate and die (from the horrific sludge, sewage, and other pollution in the river). The sound is difficult to discern but the footage is graphic and gross.

Suggested Images for Powerpoint Presentation:

- Portland 1860s “Stumptown” (OHS)
- Portland 1880s Harbor (OHS)
- Governor Tom McCall (Archives)
- Images from “A River Restored” (National Geographic Article – 1972)
- Map of Post-WWII suburban development in Portland 1950-2005 (shows the growth of Portland suburbia and its containment by the Urban Growth Boundary)
- Image of an Old Growth Forest; image of a Spotted Owl
- Portland Harbor DEQ Superfund Site Map (cleaning up the Willamette River is an issue that still exists today)

Modifications/Extensions:

1. Prepare a short quiz on the information presented in this lesson to gauge understanding.
2. Have students take notes on the presentation (Cornell-style) and hand them in.
3. Prepare a worksheet for the Oregon Atlas and have students (either individually or in small groups) look at the Atlas, find the appropriate maps and answer a series of questions.

Assessment: Students will be assessed on their participation in a class discussion prompted by the powerpoint images, Oregon Atlas maps/statistics and Willamette River video (or alternatively, students can turn in notes and/or complete a worksheet exercise).

LESSON 4: Dramatic Environmentalism

Using dramatic tools to understand the environmental and conservation movement.

Objectives: Students write mini-dramas illustrating a dialogue between historic and/or present day characters that played a part in the development of the environmental and conservation movement nationally and/or in Oregon.

Outcome/Goals:

1. Students will be able to interpret and put some perspective on the cultural context in which the environmental and conservation movement developed via the identification of important characters and events.
2. Students will be able to give a personal “voice” to the various issues and ideas presented in the timelines and Oregon presentation that will help to illuminate and interpret these historical events.
3. Students will appreciate differing positions and opinions – identifying the often conflicting needs of economic growth and environmental protection – and that there are rarely any easy answers.

Time Needed: 2-3 class periods

Materials:

- Dramatic Dialogue Instructions
- Environmental & Conservation Movement Timelines (as reference)
- Access to Oregon Atlas and other research materials/internet sources

Procedures:

1. Go over the instructions for creating dramatic dialogue.

One dramatic model might be in the ‘agitprop style’ (or propaganda-style) which draws broad lines and uses shorthand to represent the position of political groups. A particularly effective method in the classroom is to write agitprop from two or more positions—causing the student to suddenly reassess their feelings and ideas on the topic.

Model an example of a short dramatic dialogue (use the example included in the instructions) and have the students articulate through a class discussion:

What is the time period? Event? Issue?

Who are the characters?

What are the differing viewpoints?

2. Assign students to groups of 3-4. Provide class time for the student groups to choose a dialogue topic and create/research characters.

Assignment: Hand in a paragraph briefly explaining the drama topic, a list of characters and student assigned tasks (who will be researching/preparing what piece of the drama).

Homework/Additional Class Period: Students should research their characters/issue in preparation for creating the dramatic dialogue.

Provide additional class time if necessary to complete the research (students are not required to research as thoroughly as if preparing a persuasive paper, but should be familiar enough with the issue to give legitimate “voice” and “emotion” to the characters).

3. Provide a class period to write and practice the dialogue.
4. Provide a class period to present and discuss the mini-dramas.

Optional: Students can be required to take notes during each presentation. See note-taking worksheet as a possible guideline.

Assessment:

- Dialogue Proposal Proposal
- Dramatic Dialogue Write-up
- Dramatic Dialogue Presentation
- Participation in class discussion of dramatic dialogues (and/or student notes)

Modifications/Extensions:

Modifications: You can assign groups to make sure that there is a mix of skills in each group (to make sure all the “dramatic” personalities don’t gravitate to the same group and are mixed with the more shy students).

Extensions: The entire class can develop and perform a single comprehensive dramatic piece that involves more characters and addresses a topic/event/issue in more depth (either teacher or student-chosen). Students would have more latitude to participate in different ways (stage props, research, media background, acting, etc.) depending on their skills and interests.

DRAMATIC DIALOGUE INSTRUCTIONS

Using what you have learned from the Environmental and Conservation Timeline exercise and the Oregon Perspective, create a dramatic dialogue that illustrates the various characters and viewpoints of a particular event or issue of your choice. The “characters” do not all have to be human – you could choose to give voice to a salmon or a tree for example. Nor does a character necessarily have to be a real person or exist in the same time period – you could choose to create a fictional family to represent the issue of suburbanization and the American Dream or create a dialogue between Teddy Roosevelt and G.W. Bush on the appropriate use of federal land.

The elements you should include in your dramatic scene are as follows:

1. A minimum of 2 pages of dialogue – about 3-5 minutes worth.
2. At least 2 characters but not more than 5 characters.
3. Dialogue should begin with a short narrative “setting the stage” including identification of the time period/event and brief introduction of the main characters. Do not explain everything in this narrative...let the dialogue do that.
4. Dialogue should contain detailed stage directions including movement (*character enters from the left*), vocal/body expression (*character leans forward and in a loud and booming voice declares...*), identification of stage props (*podium, table, old growth forest, etc.*).

And, most importantly...

5. Create a dialogue that presents at a minimum 2 different points of view on the issue.

Some Suggestions:

- Select a significant “moment in time” from your chosen topic or issue. In particular, choose a moment that illustrates that something has changed or has happened that creates a compelling reason for this dialogue.
- Have the dialogue reflect the attitudes and motivations of the characters and use the dialogue to explain why they are speaking to each other at this moment.
- Include actual quotations (from speeches, narrative from a book or other document, transcripts from a trial, etc.) wherever possible to add realism to the dialogue.

Dialogue Example: Viewpoint #1

Narrator: In 1901, Theodore Roosevelt was elected president of the United States—the first president of the new century. He had spent much of his youth in the West. He believed the nation’s natural resources should be managed in a way that the entire nation was developed and enriched—rather than just a few private individuals becoming rich off the spoils of the land. He also saw that some areas were just too important to develop. Those areas could enrich future generations by remaining natural monuments and serving as National Parks.

Roosevelt: *(standing at lectern, addressing a large public audience; his voice is booming/loud and he is waving his arms occasionally to make a point; particular emphasis words are underlined)*

I believe that the ‘timber barons’ have gone too far. They are stripping our public lands for their private benefit. Under my leadership *(wave arms)*, national parks will be established for the benefit of all people and future generations *(gesture to audience)*. Other public lands will be developed, but only when private companies pay a fair fee to mine or log in those areas.

Baron: *(enter Robber Baron—He is large, looks like a literal fat cat, or perhaps the ‘rich guy’ on the Monopoly board. His voice is alternately wheedling and angry)*

Roosevelt, how can you consider this *(whining)*? You are of the moneyed upper class yourself! What’s wrong with you *(angry)*?

Roosevelt: *(addresses robber baron directly with an authoritarian air)*

Much has been given us, and much will rightfully be expected of us. We have duties to others and duties to ourselves; we can shirk neither. Justice and generosity in a nation, as in an individual, count most when shown not by the weak, but by the strong *(words from TR 1905 inaugural address)*.

You will recall what I said in 1903 at the dedication of Yellowstone National Park, the first national park in the world: It is the property of Uncle Sam and therefore of us all.

RB: *(in an angry outburst grabs the podium and tries to push TR out of the way)*

Give me that podium! You are a goddam traitor to your class! I deserve to cut trees! It is my right as an American entrepreneur.

Roosevelt: *(striking RB to the ground)*

Oh, no, I will hold on to this bully pulpit, thank you very much!

Now that it is apparent who is the ‘bad guy’ and who is the ‘good guy,’ consider viewpoint #2, adding characters and a few more lines of dialogue to the above.

Baron: *(begins to sob after being thrown down by TR, wailing...)*

I am an immigrant to this country; I asked for no handouts; I built my fortune from nothing. In return I employ hundreds of hard-working people; I pay taxes. What has happened to the promise of America? To the goals of the forefathers? To life, liberty and the pursuit of happiness? What has happened to our right to be free from an overly powerful and despotic government? This is what I escaped from!

Baron: *(turns to three little children standing quietly off to the side, sweet expressions, well-behaved and nicely dressed)*

Well kids, wipe those contented smiles off your faces and take those nice clothes back to the store. Let your fathers know that their logging jobs have just been eliminated. Let your mothers know they had better start looking for employment in the sweat factories if your family intends to continue eating! *(with a resigned sigh)* The dream is over!

(children exit, heads down, crying)

Some Suggested Dramas:

National Park Service in 1916 vs. mining companies wanting rights to extract minerals from federal park land.

Rachel Carson vs. Marine who did not get debilitating malaria due to the use of DDT in the jungles of Vietnam.

Family members (father who worked hard to buy a house; teenager of the nature-loving counter-culture; mother worried about the children being exposed to pollution by herbicides used in the lawns; child who wants to play in yards/fields rather than a parking lot) debating about the pros/cons of using prime farmland to build their new dream home in Levittown (consider clip from ‘Little Shop of Horrors—‘Somewhere That’s Green’).

Bottle Bill—Environmentalists vs. Beer/Soda Manufacturers/Bottlers

Beach Bill—Public (access to the beach) vs. Landowners with beachfront property.

Kyoto Protocol—U.S. Diplomats vs. World/International Diplomats

Ballot Measure 37—Urban Growth Boundary Supporter vs. little old lady who has owned her property since the 1940s and is dependent on the income she can only get by selling to a developer.

Dams/Power-Generation vs. Salmon/Fishermen

Graphic Organizer for Dramatic Dialogues

Name: _____ Date: _____

<i>Background (Introduction Narrative)</i>	
What is the event/issue being portrayed?	
Who are the characters?	
What is significant on the “stage”?	
<i>Viewpoint #1</i>	<i>Viewpoint #2</i>
Describe the viewpoint/opinion. Whose is it?	Describe the viewpoint/opinion. Whose is it?
What “facts” have been presented in support?	What “facts” have been presented in support?
<i>Conclusion/Comments</i>	
Do you agree? Why, why not?	

LESSON 5: Final Debate – Is Cheney Right?

Objectives: Students will explore the difficulty of translating opinion into public policy (both in an historic and contemporary context) using Cheney’s quote (introduced at the beginning of this unit) as a central point of debate.

NOTE: Students should have sufficient knowledge of the role of energy production in fueling industrialism. In particular, students should understand the controversial nature of extracting fossil fuels (as a finite and fast disappearing resource) and how it plays into the conservation movement. If this topic is not sufficiently covered in the initial timeline exercise (via the Kyoto Protocol, etc.) teacher should provide a brief review of energy production and policy.

Outcome/Goals:

1. Students will understand the difficulty of developing contemporary environmental and conservation policy based on an historical legacy, past and prevailing cultural norms, conflicting information and future socio-economic goals.
2. Students will be able to connect historical environment and conservation objectives with prevailing ideas and attitudes.

Time Needed: 1-2 class periods

Materials:

- Cheney’s Quote prominently displayed.
- Access to Icon Timeline and presentation/drama notes (for reference).

Procedures:

“Conservation may be a sign of personal virtue but it is not a sufficient basis for sound, comprehensive energy policy.”

The Oxford Debate: Is Richard Cheney correct in his assessment of conservation ideals and national energy policy?

1. The Oxford Debate is a long English tradition (a variant of it is still used in the English Parliament). Each student is expected to take one of three positions on the question—*Is Richard Cheney correct in his assessment of conservation ideals and national energy policy?* The positions are agree, disagree, and neutral/don’t know.
2. The room is divided into three sections representing the three positions (label the sections with a piece of paper taped to the wall). Students locate themselves along a line in one of the sections according to their opinion on the question (give students only a few seconds to quickly move to a section – they may change their mind as the debate continues).
3. At the head of the line of the ‘agree’ section, the first speaker is allowed one minute to support and state, in as strong a manner as possible, his/her reasoning for choosing this section (teacher should be moderator/timekeeper and VERY strict about limiting all comments to one minute!). S/he then goes to the tail of the line.

4. The first person in line in the ‘disagree’ section speaks. S/he may make a similarly strong personal case or may choose to rebut the previous speaker. S/he also has one minute, then goes to the tail of the line.
5. The “floor” goes to the next person in the ‘agree’ section and so forth.
6. Students in the ‘don’t know’ line do not speak. However, after all arguments are made and/or rebutted in the ‘agree’ and ‘disagree’ lines, the ‘don’t know’ students may move to either the ‘agree’ or ‘disagree’ sections and may, in turns, have one minute to state why they moved.
7. During this shuffle, students in the ‘agree’ or ‘disagree’ sections may also choose to move to the ‘don’t know’ section (in which case they do not speak) or to the ‘opposite’ side (in which case they, too, may have a turn to state why they changed their mind).
8. Again, after all those who moved have spoken another opportunity to shift to another section should be given and the process repeats. The debate continues until all students have “chosen” a position, had a say, and no longer want to move.

NOTE FOR TEACHER MODERATOR: Students should be instructed to make strong cases one way or the other using facts and statistics to support their assertion in an attempt to sway others’ opinions – the GOAL is to get everyone in your section (although this will rarely happen). When necessary, the teacher, acting as moderator, should identify and avert unsupported “ranting” and certainly any personal attacks. Go over the rules of proper discussion and debate if necessary prior to this exercise. Students should also be encouraged to “change their mind” if their opinion is swayed one way or the other by a compelling argument – THIS IS NOT A SIGN OF FLIP-FLOPPING – IT IS AN INDICATION OF OPEN-MINDEDNESS!!! A debate with many different issues and sides may take a full 90-minute class period or more for students to sort things out and formulate an opinion (or remain in the ‘don’t know’ section).

FOREWARN STUDENTS THAT A PERSUASIVE ESSAY IS THE HOMEWORK ASSIGNMENT AND ANY FINAL ‘OPINION’ MUST BE SUBSTANTIATED BY THE FACTS AND ISSUES IDENTIFIED IN THE DEBATE. Students can take notes during the debate if they choose.

HOMEWORK: Write a 2-3 page persuasive essay explaining and supporting your final position on the Cheney question (agree, disagree or neutral/don’t know).

Assessment: Students will be assessed on their participation in the Oxford Debate and their persuasive essay (see rubric that follows – will need to be slightly modified as this is not a ‘research’ paper per se, but more of an ‘opinion’ essay – however, students will be required to substantiate their ‘opinion’ with as much fact as possible and should be scored appropriately).

Essay: Social Studies Scoring Guide

Student Name _____ Essay Assignment _____

	4	3	2	1
Thesis:	Clear, thoughtful position. Provides comprehensive, meaningful interpretation.	Clear, thoughtful position but lacks comprehensive, meaningful interpretation.	A stated position but no interpretation.	No clear position given.
Analysis & Support:	Strong supportive arguments given with powerful and relevant detailed factual evidence. Provides a thorough critical analysis.	Some supportive arguments with relevant factual evidence providing more analysis.	Too few supportive arguments, little evidence, limited analysis.	Unsupported generalizations, irrelevant details, lacks analysis. Mostly opinion.
Communication:	Well organized, clear structure. Vivid, fluid writing. Correct spelling, grammar, punctuation.	Organized structure with clear writing. Minor errors in spelling, grammar or punctuation.	Some organization but awkward writing. Errors in spelling, grammar or punctuation.	Lacks organization. Unintelligible writing. Many errors in spelling, grammar or punctuation.
Research & Documentation:	Variety of relevant, well-documented sources appropriately and completely cited.	Adequate number of relevant, well-documented sources, sufficiently cited.	Some relevant, documented sources, minimally cited.	Lack of relevant, documented sources, rarely or incorrectly cited.