

Time Frame

5 Class periods

Key Words

Forest Reserves
Forest Service
Organic Act

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OVERVIEW

A New Profession Takes Seed has students study the origination and development of the Forest Service—a classic example of Progressive Era idealism. Students will examine the changing responsibilities and roles of foresters during the 20th century through present-day and also will reflect upon the evolution of forestry as a profession.



Typical early-day Forest Ranger in the southwest, Jim H. Sizer (shown here in 1910), who served as Ranger and Assistant Supervisor from 1909 to 1943 at Apache and Tonto National Forests. *Forest History Society* photo.

OBJECTIVES

National Standards for History

- The student will understand how the Progressive Movement addressed the impact of industrial capitalism on trees and forests. (Era 7, The Emergence of Modern America: Standard 1)

National Council for Social Studies

- Describe the role of institutions in furthering both continuity and change. (Standard 5, Individual, Group, and Institutions)
- The student will analyze and explain ideas and governmental mechanisms to meet needs and wants of citizens, regulate territory, manage conflict, and establish order and security. (Standard 6, Power, Authority, and Governance)

LESSON PLAN

Day 1

Set the stage for this activity by writing the following quote on an overhead sheet or blackboard. Do not include the author of the statement or date.

“Any fool can destroy trees. They cannot run away; and if they could, they would still be destroyed – chased and hunted down as long as fun or a dollar could be got of their bark hides...God has cared for these trees, saved them...but he cannot save them from fools – only Uncle Sam can do that.” -John Muir, excerpt from *Atlantic Monthly*, 1897

Read aloud the above passage and allow students a few moments to think about its meaning. Lead a group discussion based on the following questions:

When do you think this statement was written? Why?

What is the problem the author refers to and who does he believe can solve the dilemma?

What solution(s) do you think the government devised to solve the problem? What solutions do you think private citizens devised?

Distribute the Essay, Worksheet 1, and Worksheet 2. Have students read the Essay in order to complete the two worksheets and obtain background on the important topics and concepts for the lesson. **(Student Pages 1-9)**

Day 2

Students will read oral history excerpts to gain an “insider’s” perspective on the education of early foresters and their subsequent employment opportunities. Distribute the 3 Oral histories and Worksheet 3. Students should complete the worksheet based on the essay, the oral histories, and class discussion. **(Student Pages 10-13)**

Day 3

Show students several samples of “Help Wanted” advertisements from any newspaper and discuss the purpose of this type of announcement. Distribute Early Forestry Clues, Modern Forestry Clues, and Worksheet 4 and provide class time for students to work in pairs to compose their own “Help Wanted” ads. **(Student Pages 14-16)**

Day 4

Ask students to brainstorm about the meaning of the word *profession*. As a class, compose a list of professions and then create another list that includes characteristics common among most of the professions. Distribute Forestry Follows the Professional Path and Worksheet 5. **(Pages 17-18)** After students complete Worksheet 5 write the following passage on an overhead sheet or the blackboard.

On March 26, 1903, President Teddy Roosevelt addressed the newly formed Society of American Foresters and among other things he stated the following:

“You have created a new profession of the highest importance, of the highest usefulness to the State, and you are in honor bound to yourselves and the people to make that profession stand as high as any other profession, however intimately connected with our highest and finest development of a nation. You are engaged in pioneering work in a calling whose opportunities for public service are very great. Treat that calling seriously; remember how much it means to the country as a whole.”

Ask students to respond to the quote by answering the following two questions:

1. How did President Roosevelt regard the new profession of forestry?
2. Based on what you now know about the development of forestry during the 20th century do you believe the profession succeeded in the mission described by Roosevelt? Why or why not?

Day 5

Choose from one of three types of activity assessments:

Application and Integration Exercise (Teacher Page 6)

Test (Student Page 19) Correlated to National Council for History Standards

Reflective Exercise (Student Page 20) Correlated to National Standards for Social Studies

Use the Answer Key to check answers (Teacher Pages 7-10)

CLASS EXTENSIONS

1. Using the information below as a guide, invite a forester to the class for a visit. Ask students to generate questions for the visitor so as to learn more about the profession of forestry.

Where to Find a Forester	
<p>Use the categories listed below to identify a forester near you.</p> <ul style="list-style-type: none">❖ Consulting Foresters❖ Environmental Consulting Firms❖ Forest Products and Paper Companies❖ State Departments of Natural Resources/ Environment/ Conservation❖ Local Parks and Recreation Departments❖ United States Forest Service❖ Universities with forestry programs	<p>Use the following web pages to locate a forester.</p> <ul style="list-style-type: none">➤ Association of Consulting Foresters www.acf-foresters.com/memberlist.cfm➤ Society of American Foresters (SAF) http://www.safnet.org/certifiedforester/directory.cfm➤ Global Association of Online Foresters http://www.foresters.org/ask.htm➤ Cooperative State Research, Education, and Extension Service http://www.reeusda.gov/1700/statepartners/usa.htm➤ Forest Stewards Guild http://foreststewardsguild.org/scrscr/search.asp

2. During the course of the week students will be reading excerpts from the oral histories of 3 pioneers in the field of forestry. Using a book such as *Oral history: a guide for teachers (and others)* [Sitton, Thad, George L. Mehaffy, and O.L. Davis, Jr., Austin: University of Texas Press, 1983] as a starting point, have students conduct an oral history project of their own. Possibilities could include interviewing a retired forester or someone currently working in the field.

TEAM TEACHING POSSIBILITIES

Technology: Instead of having students complete Worksheet 5 on the sheet provided, have them create and complete their own timeline that outlines the events involved in the evolution of the forestry profession.

English: One of the extension suggestions for this activity asks students to conduct their own oral histories of a local forester. In addition to asking students to read aloud to the class excerpts of their interviews, have students locate and read a transcribed oral history of a forester or person employed in an environmental profession.

Math: Have students examine how math is used in the modern profession of forestry. Ask students to present their findings to the class.

Science: Ask students to research the scientific and technological advancements made during the Progressive Era. Have students include a section on the changes in forest science during the period.

LINKS

Forest History Society--Bibliographic resources on forestry, conservation and environmental history. <http://www.foresthistory.org>

USDA Forest Service—Official website of the Forest Service that includes photos, employment information, and current information regarding the activities of this government agency. <http://www.fs.fed.us/>

Society of American Foresters—Helpful information about the profession of forestry including, career advice and links to resources in the field. <http://www.safnet.org/index.shtml>

References

- Argow, Keith A. "Professionalism and Ethics, A History Within SAF." *Forest History* (August 1975): 460-463.
- Block, Nadine E. "Credentialing and Accreditation Programs." *Journal of Forestry* (April 2000): 18-22.
- Clepper, Henry. *Professional Forestry in the United States*. Baltimore, Md.: Johns Hopkins University Press, for Resources for the Future, 1971.
- Davis, Richard C. ed. *Encyclopedia of American Forest and Conservation History*. New York: Macmillan Publishing, 1983.
- Fedkiw, John. "National Forests and the Performance of the Organic Act of 1897." *Forest History* (1998): 12-17.
- Hays, Samuel P. *Conservation and the Gospel of Efficiency*. Cambridge: Harvard University Press. 1959.
- Jolley, Harley E. "The Cradle of Forestry." *Forest History* (1998): 18-20.
- MacCleery, Douglas. *American Forests: A History of Resiliency and Recovery*. Durham, NC: Forest History Society, 1992. 5th printing 2002.
- Pinchot, Gifford. *Breaking New Ground*. Washington, D.C.: Island Press, 1947.
- West, Terry L. *Centennial Mini-Histories of the Forest Service*. Washington, D.C., United States Department of Agriculture, 1992. http://www.fs.fed.us/global/wsnew/fs_history.htm
- Williams, Gerald W. *The USDA Forest Service – The First Century*. Washington, D.C.:USDA Forest Service, 2000.

ASSESSMENT 1: APPLICATION AND INTEGRATION

Background

Write the following information on the board or on an overhead sheet:

According to an article entitled “So You Want To Be A Forester?” in the September **1965** issue of *American Forests* if a person could answer “yes” to the majority of the questions below he/she would be suited for the profession of forestry.

1. Last time I took a hike in the woods, do I remember what kinds of trees grew alongside the trail – at least the principal kinds of trees?
2. Am I anxious to learn more about birds? Wild plants? Trees? Insects?
3. Do I notice what kinds of trees and plants grow in my neighbors’ yards when I walk along the street?
4. Do I enjoy being all alone in the woods?
5. Do I like my teachers? Or most of them, anyway?
6. Do I have lots of friends?
7. Do I like to meet my parents’ friends? Do they seem to like me?
8. Do I do well in school – reasonably well, at least – including the mathematics courses?
9. Am I taking a real interest in what my community is doing to develop parks, open spaces, nature preserves, or the like?
10. Have I ever taken an active part in any project for civic improvement, community welfare, or helping my neighbors?

Preparation

Spend a few minutes analyzing each question. For every question use the following 2 prompts to generate discussion:

1. How would answering “yes” to this question imply that a person might be suited for a career in forestry?
2. Is this question still relevant to modern forestry? Why or why not?

Next, have students compile 5 “yes” or “no” questions not listed above that they believe would help a person determine if he/she was suited for a career in modern forestry. Finally, ask students to create 10 questions they think a person applying for a forestry position should be able to answer. Encourage students to devise questions that would elicit more than a “yes” or “no” answer. (Example: As a forester how would you balance the needs of the people against the protection of the environment?)

Interview

Arrange students in groups of 2 so they can conduct a mock interview for a forestry position. Students may decide which role to play first (either the interviewer or the job applicant), but instruct them that upon completion of the interview they will switch identities. When assuming the role of the interviewer students should ask the applicant the 10 questions he/she created during class. At the conclusion of the interview, the interviewer should decide whether or not to hire the prospective forester based on how well the questions were answered.

TEACHER'S ANSWER KEY

Worksheet 1: Keyword Puzzle

Across

2. Author of 1864 book *Man and Nature* that became a spark for public concern regarding the future of U.S. forests.

Marsh

3. Legislation that provided the first policy guidance for management of national forests. **Organic Act**

4. Type of forestry that reflected Progressive values of efficient management and technical training to solve problems brought about by industrialization. **Scientific**

9. During the latter half of the 19th century many people believed forests were **inexhaustible**.

11. First Chief Forester of the redefined U.S. Forest Service and famous for his "call to action." **Pinchot**
(pronounced Pin-show)

12. Now called national forests this was the original name given to land owned by the government and designated for public use. **Reserves**

Down

1. Era at the beginning of the 20th century where private citizens lobbied for social change either at the hands of the government or professional "experts." **Progressive**

5. Early conservationists predicted that the reckless destruction of trees eventually would result in a timber **famine**.

6. Founded in 1898 this was the first forestry school in America. **Biltmore**

7. President known for his significant contributions to the conservation movement. **Teddy Roosevelt**

8. First American university to offer a graduate program in forestry (1900). **Yale**

10. Formerly called the Division of Forestry this government agency changed its name to the U. S. Forest **Service** to symbolize its mission to benefit society.

Worksheet 2: Essay Analysis

1. Why was there a need for the profession of forestry at the beginning of the 20th century? **The rapid expansion of the U.S. following the Civil War resulted in the drastic depletion of American forests. Due in great part to the efforts of private citizens, the public gradually became aware that forests needed protection and management and a new profession to carry out this responsibility.**

2. How has the Forest Service changed from its beginning in 1905 to present-day? **Besides increasing in size over the years the Forest Service gradually employed more women and minorities. Also, the three eras of the agency (custodial, commodity-production, and environmental) demonstrate how the Forest Service changed its priorities in an effort to balance the needs and desires of the public with a growing concern for protecting the environment.**

3. When the government decided to create forest reserves in 1891 what needed to be done to ensure this land was managed properly? **A government agency needed to supervise the new reserves and new programs had to be designed by established schools like Yale (or new schools were created such as Biltmore) to train foresters how to properly manage the reserves.**

4. Describe the changes Gifford Pinchot made to the government agency created to manage national forests. **Concerned with the corruption and mismanagement present in the Division of Forestry under the supervision of the Dept. of Interior, Pinchot lobbied to have the agency shifted to the Dept. of Agriculture. Soon after President Roosevelt complied with this request Pinchot changed the name of the agency to Forest Service to symbolize its mission of service to the public.**

5. Based on figure 4 during what period of time did the biggest increase in employees of the Forest Service occur? Why do you think this was the case? **Between 1949 and 1979. This increase occurred because following WWII on average Americans experienced more prosperity and leisure time than any other period. These new circumstances led to an increase in demand for lumber (to build homes) and increased access to national forests for recreation. In order to meet these demands the Forest Service needed more employees.**

6. What were some of the actions early conservationists took to alert the public to the devastating effects of development on the environment? **Early conservationists wrote books, conducted and published scientific studies, and testified before Congress to draw attention to their cause.**

7. What role did industry play in the prevention of the timber famine predicted by early conservationists? **Although often overlooked, many industry leaders participated in the conservation movement by taking an active role in the sound management of forests. Aware that conservation of trees was in their best long-term interest, industries turned the new regulation of forests into an economic asset, which in turn helped prevent further waste and ultimately a timber famine.**

8. Besides working for the U.S. Forest Service, or some other government agency, what are some other employment opportunities available for trained foresters? **Trained foresters can work as researchers, college professors, consultants, directors of community projects, or as employees for private industry.**

Worksheet 3: Oral History

Answers for the KWL chart (numbers 1-3) will vary.

4a. In what state was each of the speakers born? **Clepper: Pennsylvania; Eldredge: South Carolina; Fromme: Indiana.** Answers for 4b-4e will vary but following are examples of acceptable responses:

4b. List 3 questions not asked by the interviewer that you believe would provide relevant information about the early history of forestry. **1. Why did you become a forester? 2. What were some of the difficulties you faced in your job? 3. How did people outside the profession feel about forestry?**

4c. What are 2 similarities between the experiences of the 3 foresters? What are 2 differences? **Similarities: 1. All men. 2. Each attended forestry school. Differences: 1. Fromme, Eldredge born in 1882 and Clepper in 1901. 2. Each attended different forestry schools.**

4d. Would you consider these 3 men pioneers? **You could consider them pioneers because they were some of the first people to work in the new field of forestry. By choosing such a career they helped to establish a new profession and a new type of thinking about the purpose of forests.**

4e. What conclusions can you draw based on your reading of these oral histories? **When these men worked the profession was just beginning and forestry meant different things to different people. A sense of excitement existed among early foresters who believed their work was meaningful and important.**

Worksheet 4: Help Wanted!

Normally, classified advertisements charge by the line but to make this exercise more challenging students must create their own "help wanted" based on a per word charge. Since the ad is supposed to run for 18 days and the allotted budget is \$60.00 the maximum word count allowed is 66. Answers will vary but provided below are sample acceptable responses.

Forester (1935) Job description: **Position open for a full-time forester. Job includes prevention of forest fires, fighting forest fires, and protection of forests from timber thieves.** Skills needed: **Need a man handy with horses who has good knowledge of lumbering practices, different tree species, fire fighting skills, and grazing habits of animals. Should have a degree in forestry and experience is preferred but not necessary.**

Forester (2002) Job description: **Position open for a full-time forester who will work with private landowners, government officials, and special interest groups to develop recommendations about the best use of forest lands in several states. Skills needed: Must have a degree in forestry, strong background in science, and good computer skills. Job demands excellent research capabilities, environmental knowledge, and both the ability to work well alone and with other people.**

Worksheet 5: Tracking the Profession of Forestry

Year: **1900**; Action: **Founding of SAF**; Profession: **By forming their own society foresters now had a support network of colleagues and a way to set the standards for the new profession. Public confidence in forestry would increase when people realized foresters weren't working as individuals, but rather as an informed and unified group.**

Year: **1935**; Action: **First accreditation of American forestry schools**; Profession: **The accreditation of schools served as a way to make sure all forestry programs offered their students a similar curriculum to properly train foresters for their future work. By recognizing certain schools, the public would know that a graduate of such an institution would have the necessary knowledge to be a competent forester.**

Year: **1948**; Action: **SAF adopts first code of ethics**; Profession: **When the SAF established a code of ethics they wanted foresters to follow a set of guidelines that would help remind them of their duties and responsibilities. Also, the SAF wanted to reassure the public that foresters truly cared about their line of work and would serve the needs of the people before their own individual desires.**

Year: **1955**; Action: **First handbook for foresters published**; Profession: **Since no one in any profession can know all the answers, a handbook helps professionals expand their knowledge and improve job performance. People would have more confidence in foresters knowing they can refer to a comprehensive reference guide if additional instruction was necessary.**

Year: **1981**; Action: **SAF begins its Continuing Forestry Education Program**; Profession: **As with any other line of work, the techniques and principles of forestry continue to evolve. By encouraging foresters to take additional courses even after they have completed an undergraduate and/or graduate degree in forestry, the SAF hopes to increase the productivity and of its members and establish even more credibility for the profession by demonstrating that foresters are "keeping up with the times."**

Year: **1994**; Action: **SAF created the Certified Forester Program**; Profession: **By establishing lofty standards for foresters, the SAF is hoping to improve the quality of the work done by members of the profession. Also, by instituting such a program the public will have more respect for foresters when they realize the difficulty involved in achieving certification.**

Assessment 1: Test

1. Describe how progressive thinking of the early 20th century influenced the curriculum in the initial schools like Yale. **Unlike the first American forestry school Biltmore, which emphasized practical forestry, Yale and many other early forestry schools provided a program rich in scientific theory. Rooted in progressive thought, these early schools were meant to train foresters how to scientifically manage U.S. forestland.**
2. Provide 3 examples of how the government intervened to protect American forests during the late 19th century and early 20th century. **1. Passage of the Reserve Act (1891) 2. Passage of the Organic Act (1897) 3. Creation of the Division of Forestry (1897 -- became U.S. Forest Service in 1905)**
3. Why did President Teddy Roosevelt agree to help Gifford Pinchot improve the government agency responsible for the management of national forests? **Influenced by the progressive thinking of the day, T.R. believed the government had a responsibility to promote social change and respond to the demands of its citizens. Additionally, T.R., a conservationist himself, believed the protection of U.S. forests was a worthwhile goal.**

4. Explain how the creation of the U.S. Forest Service reflected the progressive idealism of the day. **Progressives had confidence that trained experts who utilized science and the latest technology could solve the problems caused by the rapid development. The Forest Service is a symbol of this thinking because it was believed that a government agency staffed by properly trained individuals could reverse the destruction of timbered land that took place throughout the 19th century and the beginning of the 20th century.**

5. What were some of the reasons why the government took measures to protect American forests? **The major reason why the government chose to intervene was because of the convincing arguments about the possibility of a timber famine put forth by early conservationists. Another contributing factor was the emerging Progressive movement at the end of the 19th century. Progressives lobbied government officials to take an active role in solving the problems brought about by industrialization and in many cases Presidents like T.R. responded positively to the public pressure.**

6. What is the relationship between scientific management of forests and the Progressive Era? **The scientific management of forests advocated by early foresters like Pinchot was based in progressive thought. In addition to conservation, scientific management called for the use of reason and scientific principles by trained experts to ensure both the protection and wise use of national forests.**

7. Explain the significance of the Organic Act. **When Congress passed the Forest Reserve Act in 1891, U.S. presidents received the authority to set aside forestland restricted from sale to the public. Even though the protection of forests began with this legislation, it was the Organic Act that outlined the purpose of the reserves. The Organic Act served as the model for government policy regarding national forests – rather than restricting these lands from the public, the Organic Act instead called for responsible management.**

8. Did the Progressives advocating a change in federal land policy have a legitimate basis for concern? **By looking at the graph you can see that between 1850 and 1890 the amount of forested land in the U.S. declined by approximately 200 million acres. With such a drastic decrease in forested land, during such a short period of time, the Progressives did have real cause for concern.**