



LESSON PLAN

TIMBER!: THE TEXAS LUMBER INDUSTRY

Social Studies, Grades 4 and 7

OBJECTIVE

The lumber industry has played a key role in the economic development of Texas since the end of the Civil War. Timber production in East Texas was partially responsible for the rapid growth of railroads in the state, as well as the development of the Texas paper industry and the rise of both residential and commercial building. However, jobs in the lumber industry have been considered as some of the most hazardous occupations, and numerous problems with pollution and deforestation have led to some people speaking out against commercial lumber production.

This lesson highlights the work of lumberjacks and millworkers, as well as the benefits of the paper industry, the need for conscientious timber stewardship, and the importance of lumber to the Texas economy. Using videos showing different aspects of lumber production and outside research from their textbooks and reference websites, students will analyze and compare depictions of the lumber industry – both those showing the hazards of timber manufacture and those showing the benefits of lumber production. Students will develop analytical and critical thinking and viewing skills, identifying the strengths and weaknesses of their subject.

This lesson employs a project-based learning approach, which improves retention of new content and develops students' personal connections to the past. Students will be asked to work cooperatively with their class, as well as independently research and create a final project. Several of the videos have worksheets to accompany them to facilitate note-taking and research, but students may find additional information in the videos useful for their Extended Learning project. An annotated list of resources for additional research is also provided.

PROCESS

Prior Knowledge

Students should have knowledge of the following areas to successfully take part in this activity:

- Students should have a basic knowledge of Texas economics, industry, and production.
- Students should be aware of some of the uses for timber and importance to the economy of some wood products.
- Students should know that sources that explain the past can present differing viewpoints.



LESSON PLAN

- Students should have the skills to conduct basic research on their subject and present the information they have gathered on their topic.

Hook

Begin by having students write down on a sheet of paper a list of five to ten items that are made from trees. Collect their responses and compare the lists. List the most common examples given on the board/overhead and brainstorm with your class other essential products that come from the lumber industry.

Next, show students the silent video Temple Lumber Company (see Videos). The video is a brief depiction of work in a lumber mill. After watching the video, discuss with students why the lumber industry has been seen as dangerous. Ask them if they see any scenes in particular that seem to risk the operator's safety. Explain the conflict in early Texas industries between the need for products and the safety of the land and of the workers.

Lesson

approx. 90-120 minutes

Begin by assigning students to examine either the utility of the lumber industry or the dangers of timber production. Students can also choose which they would like to investigate further.

Students will watch one of the videos which supports their position. Students can complete a worksheet for the film which highlights some of the main points of the film and asks the students to think about larger implications. Worksheets to accompany four of the main films can be found in the "Worksheets" tab. They can complete this in groups or individually.

Depending on your classroom set-up, students can rotate through researching their subject in their textbooks, library materials, or on classroom computers. Helpful websites and recommendations for books about the lumber industry are provided in the Resources section.

After students have viewed the film assigned to them, completed their worksheet, researched their topic using the textbook or other sources, and recorded their observations and thoughts, divide students into groups based on which side they have been examining.

Students can now "report out" as a group what they learned. This will be a short classroom presentation in which all members will participate. The opposing side should be able to ask questions of the students.

Extended Learning

Students can use the research they have gathered from the films and in the classroom (as well as at home) to create a promotional brochure supporting the timber industry or calling for



LESSON PLAN

environmental or labor reforms. Students should use illustrations and promotional language to persuade the reader to their side.

Each brochure should clearly state their position, the time period from which they are making their argument, the names of key events and people, and any figures or statistical information that supports the point they are trying to make.

Videos



Temple Lumber Company

3:49

https://texasarchive.org/2011_02284



Timber Harvesting in Shelby County (1976)

18:54

This student film from 1976 looks at the process of harvesting timber in Timpson. Joining a contractor at a job site, the film captures multiple stages of the process, from cutting down trees to loading them onto a truck. The Timpson High School students who produced the film also interview the contractor and the landowner about the industry and how it has changed.

https://texasarchive.org/2014_00437



Paper and I (c. 1950s)

15:12

In this film from the Texas Forest Service Collection, a young boy learns about the South's paper products industry and "what the world would be like without paper" through the guidance of an animated paper bag.

https://texasarchive.org/2008_00258



Trees for Tomorrow: Texas Forest Service (c. 1960s)

13:42

Produced by the Texas Forest Service, this film describes the Texas Tree Improvement Program, which is dedicated to "meeting the challenge of our future wood needs with better quality trees for tomorrow."

https://texasarchive.org/2008_00257



LESSON PLAN



House Hearings on Big Thicket National Preserve: Maxine Johnston (1972)

6:16

This film from 1972 captures coverage of hearings in the United States House of Representatives regarding the creation of the Big Thicket National Preserve. In the footage, broadcast on Beaumont's KFDM-TV, representatives discuss the need for and proposed implementation of conservation efforts.

https://texasarchive.org/2015_00987

RESOURCES:

Websites

"LUMBER INDUSTRY," Handbook of Texas, by Robert S. Maxwell

A key source for information on the history of the lumber industry in Texas starting in the early 19th century and continuing to developments as recent as the 1990s. The Handbook of Texas website provides links to key events and people, such as the Civilian Conservation Corps, John Henry Kirby, and the Brotherhood of Timber Workers.

<https://tshaonline.org/handbook/online/articles/drl02>

"Chapter 72 - Pulp and Paper Industry," Encyclopaedia of Occupational Health and Safety, International Labour Office

This website explains the manufacture of wood pulp and paper, describing the individual steps in detail. In addition to providing a detailed overview of production, a look at the health and safety standards of workers and the environmental impact of wood pulp and paper processing is given.

<http://www.ilocis.org/documents/chpt72e.htm>

"Aldridge Sawmill: Logging in the Piney Woods," Texas Beyond History

Part of a larger web module about the Aldridge Sawmill, this page looks at the logging industry during both its boom and its bust cycles. Using many historic images and statistical figures, "Logging in the Piney Woods" shows how lumber helped to develop the state, but also what led to some of the problems caused by the rapid growth of the industry.

<https://texasbeyondhistory.net/aldridge/logging.html>

"Texas Forest Service," Texas A&M University

The section on Managing Forests and Land provides information on forest stewardship, reforestation, and responsible timber harvesting. This website can provide information on what needs to be done to make lumber production a more responsible practice.

<https://tfsweb.tamu.edu/>



LESSON PLAN

“Early Washington and the Logging and Timber Industry,” by Dan Bryan

The author uses Seattle and Washington state as an example, but descriptions of the labor conditions, the problems of deforestation, and the boom and bust cycles can be taken more generally.

<https://www.americanhistoryusa.com/early-washington-and-logging-timber-industry/>

Books

Timber!

by Ralph W. Andrews

Set in the Pacific Northwest, this book by Andrews is human interest story that examines the impact of logging and timber production on the lives of the men and women involved.

This Was Logging

by Ralph W. Andrews

Another book by Andrews, *This Was Logging* contains over 200 images of the logging industry from the late-19th to early 20th-century.

Red River: Paul Bunyon's Own Lumber Company and Its Railroads

by Robert M. Hanft

A longer examination of the relationship between the lumber industry and the growth of the railroads.

The Everything Kids' Environment Book (Chapter 3 on Deforestation)

by Sheri Amsel

Primarily about deforestation in the rainforest, this chapter explains the impact of deforestation to the ecosystem in general.

Worksheets

Worksheet A - Timber Harvesting in Shelby County (1976)

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20A%20-%20Timber%20-%20Grades%204%20and%207.pdf>

Worksheet A Teacher Key - Timber Harvesting in Shelby County (1976)

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20A%20Teacher%20Key%20-%20Timber%20-%20Grades%204%20and%207.pdf>

Worksheet B - Paper and I

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20B%20-%20Timber%20-%20Grades%204%20and%207.pdf>

Worksheet B Teacher Key - Paper and I



LESSON PLAN

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20B%20Teacher%20Key%20-%20Timber%20-%20Grades%204%20and%207.pdf>

Worksheet C - Trees for Tomorrow

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20C%20-%20Timber%20-%20Grades%204%20and%207.pdf>

Worksheet C Teacher's Key - Trees for Tomorrow

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20C%20Teacher%20Key%20-%20Timber%20-%20Grades%204%20and%207.pdf>

Worksheet D - House Hearings on Big Thicket National Preserve (1972)

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20D%20-%20Timber%20-%20Grades%204%20and%207.pdf>

Worksheet D Teacher's Key - House Hearings on Big Thicket National Preserve (1972)

<https://texasarchive.org/sites/default/files/2020-01/Worksheet%20D%20Teacher%20Key%20-%20Timber%20-%20Grades%204%20and%207.pdf>

TEKS:

Grade 4

4C – Identify the impact of railroads on life in Texas, including changes to the lumber industry.

5A – Identifies the impact of various issues and events on life in Texas such as urbanization and modernization to 20th century in Texas.

9A – Describe ways people have adapted to and modified their environment in Texas, past and present, such as timber clearing.

9B – Identify reasons why people have modified their environment in Texas, past and present.

9C – Compare the positive and negative consequences of human modification of the environment in Texas, both governmental and private, such as economic development and the impact on habitats and wildlife as well as air and water quality.

12B – Explain how geographic factors such as climate, transportation, and natural resources have influenced the location of economic activities in Texas.

12E – Explain how developments in transportation and communication have influenced economic activities in Texas.

13B – Identify products of Texas that are purchased to meet needs in the United States and around the world.



LESSON PLAN

20B – Describe how scientific discoveries and innovations in agriculture and technology have benefited individuals, businesses, and society in Texas.

21B – Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions.

21C – Organize and interpret information in outlines, reports, and visuals.

21D – Identify different points of view about an issue, topic, historical event, or current event.

22D – Create written and visual material such as journal entries, reports, graphic organizers, and outlines.

Grade 7

6A – Identify significant individuals, events, and issues from Reconstruction through the beginning of the 20th century, including the factors leading to the expansion of the Texas frontier, the effects of westward expansion on American Indians, the buffalo soldiers, and Quanah Parker

6B – Identify significant individuals, events, and issues from Reconstruction through the beginning of the 20th century, including the development of the cattle industry from its Spanish beginnings and the myths and realities of the cowboy way of life

6C – Identify significant individuals, events, and issues from Reconstruction through the beginning of the 20th century, including the effects of the growth of railroads and the contributions of James Hogg

6D – Explain the political, economic, and social impact of the agricultural industry and the development of West Texas resulting from the close of the frontier

7B – Define and trace the impact of "boom-and-bust" cycles of leading Texas industries throughout the 20th and early 21st centuries such as farming, oil and gas production, cotton, ranching, real estate, banking, and computer technology

7C – Describe and compare the impact of the Progressive and other reform movements in Texas in the 19th and 20th centuries such as the Populists, women's suffrage, agrarian groups, labor unions, and the evangelical movement of the late 20th century

9C – analyze the effects of physical and human factors such as climate, weather, landforms, irrigation, transportation, and communication on major events in Texas

10A – Identify ways in which Texans have adapted to and modified the environment and analyze the positive and negative consequences of the modifications



LESSON PLAN

12A – Explain economic factors that led to the urbanization of Texas

12B – Trace the development of major industries that contributed to the urbanization of Texas such as transportation, oil and gas, and manufacturing

12C – Explain the changes in the types of jobs and occupations that have resulted from the urbanization of Texas

13A – Analyze the impact of national and international markets and events on the production of goods and services in Texas such as agriculture, oil and gas, and computer technology

13B – Analyze the impact of economic concepts within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas

13C – Analyze the impact of significant industries in Texas such as oil and gas, aerospace, medical, and computer technologies on local, national, and international markets

20A – Compare types and uses of technology, past and present

21A – Differentiate between, locate, and use valid primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas

21B – Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions

21C – Organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps

21D – Identify points of view from the historical context surrounding an event and the frame of reference that influenced the participants

21E – Support a point of view on a social studies issue or event

22A – Use social studies terminology correctly

22B – Use standard grammar, spelling, sentence structure, punctuation, and proper citation of sources

22C – Transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate

22D – Create written, oral, and visual presentations of social studies information