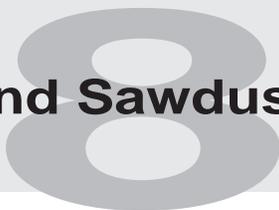


# Lead, Soil, and Sawdust, 1820–1914



Chapter 8 deals with the 1800s and how people made a living using three of the state's most important natural resources—lead, soil, and timber. In this chapter, students explore the lives of miners, farmers, and workers in the logging industry.

## Activity 8.1 *The Luetscher Farm: Figuring Out a Farm Type*

### Overview

In this activity students study a picture of a farm located in Sauk County, Wisconsin, and use it to determine the type of farm that it was. This gives students a chance to sharpen and demonstrate their ability to “read” visual materials at the same time that it lets them practice their descriptive writing skills.

### Management

#### Materials

- Student Activity 8.1 (Teacher Pages 1–2; Student Pages 1–2)

#### Grouping

- Whole class
- Small group
- Individual, supervised or independent

## Activity 8.2 *Learning from the Census*

### Overview

This activity is based on a primary-source document, an 1850 census of farmers in the community of Rosendale, Wisconsin. Students' work with this activity gives them first-hand knowledge of the people and their farms as well as practice working with charts, tables, and similar materials.

### Management

#### Materials

- Student Activity 8.2 (Teacher Pages 1–3; Student Pages 1–3)

#### Grouping

- Whole class
- Small group
- Pairs
- Individual, supervised or independent

### Activity 8.3 *Learning from a Logger*

#### Overview

This activity is based on a passage from *A White Pine Empire: The Life of a Lumberman*, written by lumberjack John E. Nelligan (1852–1937) and originally copyrighted and published in 1929. Nelligan was not a lumber baron or businessman. He started off as a manual laborer and then rose to the rank of foreman. Ultimately he made his living as a **cruiser**, someone who estimates the size and value of uncut forest. After growing up in New Brunswick, he had lumbering experiences in Canada, Maine, and Pennsylvania before coming to Wisconsin in 1871. Nelligan was involved first-hand in all aspects of the logging industry in northern Wisconsin, especially in the northeastern counties of Florence, Forest, Marinette, Oconto, Oneida, and Vilas, as well as adjacent portions of the Michigan Upper Peninsula.

#### Management

##### Materials

- Student Activity 8.3 (Teacher Pages 1–2; Student Pages 1–3)
- Pencils, colored pencils and crayons or felt tip pens
- Drawing paper

##### Grouping

- Whole class
- Small group
- Pairs
- Individual, supervised or independent

## Lead, Soil, and Sawdust, 1820–1914

### Activity 8.1: The Luetscher Farm: Figuring Out a Farm Type

#### Teacher Materials

*Preparation/Organization* This activity involves having students interpret a full-color painting of a small family farm. In order to make sure students see the full detail of the picture, you should make at least one color copy of Student Page 1 to use as a transparency. Copies for each student or group may be in black and white if you do not have access to enough color copies, as long as you leave the transparency visible while students are working.

#### *Procedure*

1. Remind students that there were several types of farms during the period covered by Chapter 8—including wheat farms, dairy farms, and diversified farms. Have volunteers explain these terms and then have other volunteers provide examples of what was done on each type of farm, what equipment might have been needed, and how each type of farm might have been laid out.
2. Display a transparency of Student Page 1 and hand out copies of Student Pages 1 and 2. Give students time to look at the transparency.
3. Discuss the directions at the top of Student Page 2. When students understand what to do, follow your chosen classroom organization and have them complete the activity. Using their answers as a guide, then have students complete the sentence on the bottom of Student Page 1.
4. After students have completed the work, meet once again as a whole group and discuss student responses. Encourage them to share their ideas about how the farm might have looked if it were only a wheat farm or if it were only a dairy farm.

#### *Answers*

##### **Part 1**

The Luetscher farm is a diversified farm since you can see livestock (cattle to the rear of the picture), trees (in the middle), and a hay wagon (in the foreground).

##### **Part 2**

Details seen in the picture may include the following:

Crops: hay being harvested; orchard or pine tree plantation; wheat or oat fields and stacks of straw in field; corn in a corncrib.

Animals: horses that are being ridden, pulling a hay wagon, raking, and cutting hay; cattle in field near barn; pigs (or more cattle) in back field.

Buildings: Large houses, possibly of brick or stone; outhouse to the left of the main house; 3 barns; corncrib; another building, possibly a schoolhouse, with an outhouse; lots of fences.

Name \_\_\_\_\_ Date \_\_\_\_\_

### Activity 8.1 The Luetscher Farm: Figuring Out a Farm Type



You have learned about several types of farms, including pioneer farms, wheat farms, dairy farms, and diversified farms. Look carefully at the picture of this farm from the 1800s. Use your observation skills to decide what kind of farm the Luetscher family had in Sauk County, Wisconsin. Write your answer on the lines below.

**Part 1**

The Luetscher farm is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**Part 2**

On the lines below, describe what you see in the picture. Use three paragraphs. In the first paragraph, tell what crops you see. In the second paragraph, tell about the animals. In the third paragraph, describe the buildings. If you need more space, continue your writing on another sheet of paper.

**Crops**

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**Animals**

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**Buildings**

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# Lead, Soil, and Sawdust, 1820–1914

## Activity 8.2: Learning from the Census

### Teacher Materials

*Preparation/Organization* You will need enough copies of Student Pages 1–3 for each student or group, depending upon how you choose to organize the activity. This activity lends itself to a number of different organizations: (1) whole class, (2) small groups, (3) pairs, or (4) individuals, with students supervised the entire time, supervised initially and then working independently for the remainder of the time, or working on their own for the whole activity.

#### *Procedure*

1. Point out that the census chart (Student Page 1) is handwritten and that it may be difficult to read, noting that people have done their best to figure out the names of the farmers who lived in and around Rosendale in 1850.
2. Then discuss the chart with students. Point out that the names in column 1 tell the “Name of Owner, Agent, or Manager of the Farm.” Continue, pointing out the following about the chart and its columns.
  - Columns 2 and 3 deal with the number of acres of land belonging to each farm. “Improved” land is land that has been cleared and used for crops or pastures. “Unimproved” land has had nothing done with it yet.
  - Columns 4 and 5 deal with the cash value of the farm.
  - Columns 6–12 deal with the kinds of livestock (animals) on the farms.
  - Column 13 deals with the monetary value of the livestock, in dollars.
  - Columns 14–17 deal with the various crops that were grown and the amount of each crop that was grown. Explain that a “bushel” is a measure of volume that is equivalent to about one cubic foot.
3. Then direct students to Part 1 on Student Page 2. Point out that this chart includes the names of the farmers and summaries of information from the census chart. Tell students to use the information from the chart on Student Page 1—and their math skills—to complete this second chart. A good strategy here would be to complete one or two items in collaboration with the students and then let them proceed on their own. Assist students with scripted numbers that are difficult to read.
4. After students have finished, have them exchange papers for assessment. Discuss the corrected papers with students, making sure they understand any errors they have made. Do not penalize students if they misread a scripted number.
5. Then direct students to Part 2 on Student Page 3. Discuss the questions with students and have them complete the page, either under your supervision or on their own. Collect their finished work for assessment.

Answers

**Part 1****Census Chart**

<b>From the Rosendale Agricultural Census page 403, 1850</b>		
<b>Farmer</b>	<b>Total Number of All Livestock</b>	<b>Total Amount of Crops Raised</b>
1. Clinton Arochsson	<b>22 animals</b>	<b>780 bushels</b>
2. Frederch Jeroet	<b>8 animals</b>	<b>280 bushels</b>
3. Jonathan Dodd	<b>33 animals</b>	<b>3,200 bushels</b>
4. Moses Baggers	<b>11 animals</b>	<b>323 bushels</b>
5. Isac Woodruff	<b>6 animals</b>	<b>250 bushels</b>
6. Henry Hatsten	<b>9 animals</b>	<b>350 bushels</b>
7. Lenord Winnijao	<b>8 animals</b>	<b>450 bushels</b>
8. Robert Winnijao	<b>6 animals</b>	<b>350 bushels</b>
9. Henry Anderson	<b>11 animals</b>	<b>250 bushels</b>
10. Constant Sowles	<b>6 animals</b>	<b>270 bushels</b>
11. John Akeson	<b>10 animals</b>	<b>190 bushels</b>
12. George D. Curtis	<b>62 animals</b>	<b>690 bushels</b>
13. Henry W. Walsot	<b>18 animals</b>	<b>850 bushels</b>
14. Almon Benson	<b>49 animals</b>	<b>750 bushels</b>
15. John Cerofsman	<b>43 animals</b>	<b>650 bushels</b>
16. Charles Lyman	<b>9 animals</b>	<b>545 bushels</b>
17. Abel Kelly	<b>13 animals</b>	<b>130 bushels</b>
18. Oran Covil	<b>16 animals</b>	<b>275 bushels</b>
19. Charles Hammond	<b>116 animals</b>	<b>265 bushels</b>
20. David Perkins	<b>85 animals</b>	<b>1,100 bushels</b>
21. Tim Stevens	<b>84 animals</b>	<b>925 bushels</b>

*Answers (continued)*

**Part 2**

1. Clinton Arochsson.
2. Charles Hammond.
3. Isac Woodruff, Robert Winnijao, and Constant Sowles.
4. Jonathan Dodd.
5. Abel Kelly.
6. Wheat.
7. Paragraphs will vary, but students should note that some farms were devoted more to livestock than to crops and that farmers with more land were not necessarily the most successful.



Name \_\_\_\_\_ Date \_\_\_\_\_

**Part 1**

**Census Chart**

<b>From the Rosendale Agricultural Census page 403, 1850</b>		
<b>Farmer</b>	<b>Total Number of All Livestock</b>	<b>Total Amount of Crops Raised</b>
1. Clinton Arochsson		
2. Frederch Jeroet		
3. Jonathan Dodd		
4. Moses Baggers		
5. Isac Woodruff		
6. Henry Hatsten		
7. Lenord Winnijao		
8. Robert Winnijao		
9. Henry Anderson		
10. Constant Sowles		
11. John Akeson		
12. George D. Curtis		
13. Henry W. Walsot		
14. Almon Benson		
15. John Cerofsman		
16. Charles Lyman		
17. Abel Kelly		
18. Oran Covil		
19. Charles Hammond		
20. David Perkins		
21. Tim Stevens		

Name \_\_\_\_\_ Date \_\_\_\_\_

**Part 2**

**Questions about the Census Chart**

Answer the following questions about the census chart and your work with it.

1. Whose farm had the most total acreage, improved and unimproved? \_\_\_\_\_

\_\_\_\_\_

2. Which farmer had the greatest number of livestock? \_\_\_\_\_

\_\_\_\_\_

3. Which three farmers had the least number of livestock? \_\_\_\_\_

\_\_\_\_\_

4. Which farmer had the most crops? \_\_\_\_\_

5. Which farmer had the fewest crops? \_\_\_\_\_

6. Judging from all of the farmers, which crop was grown the most often? \_\_\_\_\_

\_\_\_\_\_

7. What did you learn about the farms in Rosendale in 1850? Write a short paragraph to tell about it.

\_\_\_\_\_

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\_\_\_\_\_

## Lead, Soil, and Sawdust, 1820–1914

### Activity 8.3: Learning from a Logger

#### Teacher Materials

*Preparation/Organization* Students will work with their own copies of the excerpt from John E. Nelligan’s work, so be sure to prepare enough copies for each group or individual. You will also need copies for yourself to use as transparencies as well as colored pencils, crayons, or felt tip pens and drawing paper. You can use this activity with the whole class, small groups, pairs, or individuals, providing scaffolded support or letting students work on their own.

#### *Procedure*

1. Introduce the students to John E. Nelligan by telling them about his life from the late 19th and early 20th centuries, explaining that in later life he told his own story to someone who wrote it down. The work we have here is not a primary document, since it was not written by John E. Nelligan himself—but it is as close to Nelligan’s point of view as possible. As such, it is an excellent example of the Thinking Like a Historian “Through Their Eyes” concept.
2. Project a transparency of “Dramas of the Drives” and pass out the copies of the student pages. First discuss the specialized vocabulary on Student Page 1, making sure students understand that many of these words relate directly to the lumbering industry. Then have volunteers take turns reading aloud the passage on Student Pages 1 and 2.
3. Project Student Page 3 and review the document analysis questions. Allow students to work—as a whole, in groups or pairs, or individually—to answer the questions.
4. Distribute drawing paper and ask students to illustrate and caption one of the scenes that Nelligan describes.
5. Display the drawings and have students discuss the way the passage and the students’ illustrations helped them understand more about this important era in Wisconsin history.

*Answers*

1. He used a lot of descriptive and emotional words—such as “mighty, surging monster” and “a smother of spray and a tumult of noise”—to create colorful images. To heighten each situation’s importance, he also used dramatic phrases such as “epic drama of the drive,” “treacherous element,” and “send them relentlessly to their deaths.”
2. The men faced the dangers of falling into the water, the chill of the weather, and the possibility of being crushed by the logs.
3. They wore flannels for warmth in winter. When they drove the logs, they donned lighter clothing that would dry faster and not weigh them down in case they fell into the water. They wore rubber, waterproof boots in winter; for the drives they changed into spiked boots that would help give them a foothold on the logs.
4. Answers will vary, but students should appreciate that the passage makes the experience come to life for readers.
5. Answers will vary. Sample questions might be: (A) Did you ever fall into the river? (B) What was the scariest thing that happened to you? (C) Are things still done this way? Why or why not?

Name \_\_\_\_\_ Date \_\_\_\_\_

## Activity 8.3 Learning from a Logger

### Vocabulary

**epic** (ep ik) Heroic.

**reservoir** (rez ur vwar) A holding area for storing a large amount of water.

**headwaters** The source of a stream.

**spree** A period of too much eating, drinking, shopping, etc.

**calked** (kawkt) Having cleats on the sole of a shoe or boot to prevent slipping.

**hardihood** Courage and strength.

**clement** (klem ent) Mild, as in mild weather.

**unfaltering** Firm, not weakening.

**vigilance** (vij uh lens) Being alert, watchful.

**treacherous** (trech ur us) Not to be trusted; dangerous.

**miscalculation** (mis kal kyoo lay shun) Figuring out something incorrectly.

**tumult** (too mult) Loud noise and confusion.

**wended** Twisted; traveled.

### Dramas of the Drives

From John E. Nelligan's *A White Pine Empire: The Life of a Lumberman* (1929)

In the old logging days of Wisconsin and Michigan, every spring saw the curtain roll up on a tremendous drama along the rivers of the timber country; a drama greater even than that in which the giant pines were felled . . . the **epic** drama of the drive. All winter long, preparations went forward for this brief period of . . . activity and struggle. Thousands and thousands of logs were banked along the riversides, or on the ice of the streams. There they lay . . . awaiting the day when they would be tumbled into the streams and rivers, to become . . . parts of a mighty, surging monster, the drive. The sun, in its daily journey across the heavens, worked ever northward, each day adding a few moments to the time taken by that journey, each day increasing the heat by which ice and snow were changed to water . . . . In **reservoir** dams at the **headwaters** of the rivers, the waters of the spring thaw . . . were stored up to carry the logs along the fist lap of their journey to the mills.

Name \_\_\_\_\_ Date \_\_\_\_\_

In the camps, cutting operations came to an end. Some of the men left for an early spring **spree**. Others stayed on, changing their rubbers for **calked** boots, the many spikes of which, on sole and heel, were filed to sharp points that would bite into the pine logs. The heavy flannels of winter gave way to overalls which would be lighter when wet and would dry out faster. These rivermen were the pick of the camps, lumberjacks of unusual strength . . . daring, and **hardihood**. They had to be. For days they had to go with but little sleep . . . with snacks of food snatched whenever and wherever possible. They had to suffer frequent duckings and were almost continually soaked to their skins at a time of year when the weather was still far from **clement**. The price of their safety was constant and **unfaltering vigilance**. They worked in a **treacherous** element, and the slightest misstep or **miscalculation** might send them relentlessly to their deaths. . . .

There would come a day in spring when the gates of the reservoir dam on each stream were lifted and its stored up waters turned loose. Down the riverbed they rushed, eager and irresistible, tearing up and carrying along the rotten ice which covered the stream. The rollways were broken out and, in a smother of spray and a **tumult** of noise and confusion, the logs were tumbled into the rushing waters. Out upon their heaving, surging backs scampered the rivermen, pushing, pulling, and prying with their peavies and pike poles, doing their best to keep the logs always on the move. The drive was on!

Down the river it **wended** its way, around bends, over falls, through rapids. Upon the constantly shifting carpet of logs the agile rivermen labored. . . . Every effort was made to avoid jam. . . . The first lap of the journey came to an end at the dam next below the reservoir dam. In the great pond back of this dam the logs came to a temporary rest, while a sufficient head of water was raised to carry them along the next lap.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Questions about “Dramas of the Drives”**

1. What words did John Nelligan use to make the spring log sound exciting? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2. What kinds of dangers did rivermen face on the drives? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

3. What kinds of clothing did the rivermen need to wear for protection? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4. How did this reading help you understand more about what life was like for loggers in Wisconsin about 100 years ago?

\_\_\_\_\_  
\_\_\_\_\_

5. What three questions would you like to have asked John Nelligan if you could have interviewed him?

A. \_\_\_\_\_  
\_\_\_\_\_

B. \_\_\_\_\_  
\_\_\_\_\_

C. \_\_\_\_\_  
\_\_\_\_\_