Eleanor Roosevelt Reader

Learning Objectives

✓ Students will understand the causes of the Great Depression and how it affected American society. (Social Studies Content Objective)
✓ Students will visualize what they read. (Nonfiction Reading Objective)
✓ Students will write well-structured paragraphs. (Expository Writing Objective)

Resources

• Eleanor Roosevelt readers
• Copies of student reproducibles (pages 110–114)
• A Letter to Mrs. Roosevelt primary source overhead transparency
• Eleanor Roosevelt: A Life of Discovery by Russel Freedman

Before Reading

1. Complete the Introductory Activity (page 94) with the whole class. Then, divide your students into ability-based reading groups. This book is written for students at a fourth-grade reading level or above. For additional resources to teach this lesson’s objectives, see appendix page 237.

2. Ask the students to each think of someone famous. Ask them what makes a person famous. Write their ideas on the board.

3. Write the name Eleanor Roosevelt on a large sheet of paper. Ask whether any of the students have heard of her. Write the information that they know about her on the large sheet of paper. If time permits, you could read about her from a biography such as Eleanor Roosevelt: A Life of Discovery by Russell Freedman. Give students a brief introduction of Eleanor Roosevelt. Tell students that they will be learning about the exciting life that Roosevelt lived.

4. Tell the students to visualize her life based on what you have shared. Invite them to share their impressions by writing a few words about her on the piece of paper bearing her name.

5. For the Reading Activity, have the students look through the readers for pictures of Roosevelt and have them visualize her doing the activities for which she is famous. You may want to begin by modeling this for the students.
Before Reading (cont.)

6. **Social Studies Activity**—Ask each student to think of someone whom he or she knows or knows about who is famous and why that person is famous. Suggest that they think of community leaders, friends, or family members.

7. **Writing Activity**—Assign the students to write well-structured paragraphs on the topic of what it means to be famous. You could tell them that a good paragraph is like a deli sandwich. The slices of bread on the top and bottom of the sandwich are like the introductory and concluding sentences, and they need to correlate with each other. The center is where all the ingredients belong. These sentences fill the paragraph and contain the content. It will be helpful to have a visual picture of this in the room, perhaps on a bulletin board or overhead transparency so that students can refer to it. Making a graphic organizer of a deli sandwich will help students to organize their paragraphs, too.

During Reading

8. Begin by reviewing the criteria for fame that the class brainstormed the previous day. Tell the students to keep those criteria in mind as they read about Eleanor Roosevelt. Remind the students that they will learn about the 1920s and 1930s as well, and that the information will help them better understand the people and their accomplishments.

9. Engage the whole group in a “picture walk” through the reader in order to give the students background information about the people and the years between the wars. Following the picture walk, have the students read silently through the reader. You may prefer to display the PowerPoint slide show of the reader (filename: eleanor.ppt) as an electronic big book, and have the students follow along as you read.

10. Have the students work in pairs for the second reading. Tell them to take turns reading and listening to the reader. The students listening should close their eyes and picture what their partners are reading. After each section, the students should talk about the words and pictures that the words brought to mind. The students listening should share their visions with their partners.

11. For the **Reading Activity**, give each student a copy of *Eleanor Roosevelt’s Life* (page 110). Tell the students to complete the wheels based on what they have visualized and what their partners have shared about their visions.
12. Begin a discussion about the state of the country during the 1920s and 1930s for the Social Studies Activity. Show a map of the United States and point out the areas mentioned in the reader. Show the areas of the country where events took place. For example, point out the Southern states where segregation was a major issue and the area where the westward movement took place. Pass out copies of On the Job (page 111) and have the students complete the activity page.

13. Writing Activity—Have the students write short historical fiction stories about what it would have been like to live in the United States in the 1920s or the 1930s. Tell them that since the two decades were very different, they should choose one or the other about which to write.

14. Reading Activity—Display the sheet of paper about Eleanor Roosevelt from the previous day. Divide the students into five groups. There are other famous women listed at the back of the book. Assign each group a famous person to represent and give each group the appropriate sheet of paper. Tell the students to read the comments on the pieces of paper, add what they learned from the readers, and research additional information about their assigned individuals. Tell each group to draw something on the paper that is representative of its assigned person.

15. For the Writing Activity, have each group work together to write a letter that recommends its famous person to the classroom Wall of Fame. The letter should note the individual's major accomplishments and contributions to society.

16. Social Studies Activity—Have the class work together to create a Wall of Fame in the classroom. Tell the students to design it in a way that represents the 1920s and 1930s. They should include memorabilia about the famous people, as well.

17. When all of the groups have finished, have a Wall of Fame dedication and presentation. Groups should display their large pieces of paper on the Wall of Fame and read the paragraphs that they have written. Display the paragraphs beside the large pieces of paper.

18. A short post-test, Eleanor Roosevelt Quiz (page 114) is provided for your use if you want to assess student learning from the reader. A Unit Document-Based Assessment exam is also provided on pages 212–223 to help you further evaluate student learning.

19. Finally, pull the students back into a whole group to have them complete the Concluding Activity on page 95.
Primary Source Overhead

Historical Background Information

During the Great Depression, many people were out of work. Many people lost their homes and food was scarce. Families could hardly buy the necessities and did without extra things. Eleanor Roosevelt, wife of Franklin D. Roosevelt, was the first lady. She was involved in many programs to help people improve their lives during and after the Great Depression. Many people felt so close to her that they would write her letters. She received thousands of letters every year. She was not able to help everyone, but instead, she worked to help her husband institute programs that would help the entire country.

Teaching Suggestions

1. Place the transparency of A Letter to Mrs. Roosevelt on the overhead. A copy of this primary source is also provided on the CD (filename: eleanor.jpg) if you would like to print copies or show students the document using a computer-presentation system.

2. Read several stories about life in the Great Depression to the class and discuss what it must have been like for the children who lived during those years. If possible, invite someone who lived through it to talk with the class and answer questions. Pictures also help students visualize what life must have been like. There are many images of the Great Depression era on the Internet and in books about that time period.

3. Read parts of Russell Freedman's Newberry Award book, Eleanor Roosevelt: A Life of Discovery, to the class and show pictures of Eleanor Roosevelt. Highlight some of her philanthropic projects.

4. Read the letter from the overhead and ask the students to talk about it. Discuss the students' reactions to the letter. Ask questions such as whether or not they think Eleanor Roosevelt ever saw the letter. Ask the students how they would have responded to the child's letter if they were Eleanor Roosevelt.

5. Have the students write letters that they would have liked to have sent to the little girl, offering sympathy and support. Ask them to work in groups and brainstorm ways to help people in need. More of Eleanor Roosevelt's letters and even her responses can be found on the Internet. If time permits, let students read more of these letters.

6. Have the students work in small groups to complete the Helping Hands (page 112) activity sheet. You may want to assign different students to each part, depending upon their ability levels. Suggested answers are given on page 115.

7. Give the students copies of Songs of the Great Depression (page 113) and have them complete this activity page. Suggested answers are given on page 115.
Eleanor Roosevelt’s Life

Directions: In what ways did Eleanor Roosevelt help Americans? Fill in each section of the web below with a way she helped people. Then, use these notes to write a paragraph about Eleanor Roosevelt’s life at the bottom of this page.

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
On the Job

Directions: Eleanor Roosevelt is shown on the right in the picture above. Use this picture to answer the questions.

1. What does this picture tell us about First Lady Eleanor Roosevelt?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. Create a conversation between Eleanor Roosevelt and this woman.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Helping Hands

**Directions:** Complete the following activities. Write your answers on another sheet of paper. (Your teacher will tell you which activities you must complete.)

<table>
<thead>
<tr>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain why the young girl wrote to Mrs. Roosevelt.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comprehension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think about why the young girl felt that Mrs. Roosevelt could help her. What if she were to have met Mrs. Roosevelt in person? What would their meeting be like? Create a cartoon of this meeting. Be sure to include what they say to one another.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you received a letter like this one, how would you respond? Write a response letter.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you think was the saddest part of the young girl’s situation? What advice would you give to this girl if you were her friend?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are children in need in the world today. Choose one place. Create an outline that shows a plan to help the children there.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on what you know about Eleanor Roosevelt, do you think that she actually read the little girl’s letter? Explain your thoughts.</td>
</tr>
</tbody>
</table>
Songs of the Great Depression

We’re in the Money
by Al Dubin and Harry Warren

We’re in the money, we’re in the money;
We’ve got a lot of what it takes to get along!
We’re in the money, that sky is sunny,
Old Man Depression you are through, you done us wrong.
We never see a headline about breadlines today.
And when we see the landlord we can look that guy right in the eye
We’re in the money, come on, my honey,
Let’s lend it, spend it, send it rolling along!

Directions: Read the song and then answer the questions below.

1. Why is the sky sunny?
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

2. In what ways has Old Man Depression done them wrong?
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

3. Why do they say they can look the landlord in the eye?
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________
Eleanor Roosevelt Quiz

Directions: Circle the best answer for the multiple-choice questions. More than one correct answer is possible. Write your response to the short-answer question on the back of this page or on another sheet of paper.

1. What happened in the 1920s that encouraged women?
   a. They won the right to vote.
   b. Women competed in the Olympics.
   c. Women held about 39% of college degrees.
   d. Women learned to sew better.

2. Why was Eleanor Roosevelt a different kind of first lady?
   a. She was quiet and stayed at home.
   b. She spoke out on issues that she believed mattered.
   c. She set her own agenda.
   d. She traveled the country and met the people on her own.

3. Why did people write to Mrs. Roosevelt asking for help?
   a. They felt they could trust her.
   b. They wanted her to give equality to African Americans.
   c. They wanted her to support African American entertainers.
   d. They wanted her to provide jobs for African Americans.

4. Why did Mrs. Roosevelt stand up for Marian Anderson?
   a. because African Americans moved north and west seeking jobs
   b. because Marian Anderson was a good singer
   c. because she was a good friend of Marian Anderson
   d. because she felt it was wrong to judge someone by his or her skin color

5. How did Mrs. Roosevelt help her husband?
   a. She listened to what Americans thought and told her husband.
   b. She encouraged him by telling him not to give up.
   c. She stood up to her mother-in-law.
   d. She was the first first lady to fly in an airplane.

Short-Answer Question

6. Write a paragraph describing how the people in the reader show what life was like during the 1920s and 1930s.
Student Reproducibles—Answer Key

Page 110—Eleanor Roosevelt’s Life
Each section of the wheel should contain a way in which Eleanor Roosevelt helped Americans. The paragraphs will vary.

Page 111—On the Job
1. This picture shows that Roosevelt was not afraid to get close to the common person. She liked to interact with them so she could understand what their lives were all about.
2. Conversations will vary.

Page 112—Helping Hands
Knowledge—The young girl hoped that Mrs. Roosevelt would help her.
Comprehension—Mrs. Roosevelt tried to help many people in need to have a better life. She was the president’s wife too, so many thought that she could help them. Cartoons should reflect a little girl meeting Mrs. Roosevelt.
Application—Answers will vary.
Analysis—Answers will vary.
Synthesis—Plans will vary but should all include creative ideas.
Evaluation—Reactions will vary but should all be supported.

Page 113—Songs of the Great Depression
1. The sky is sunny because they have money.
2. Old Man Depression has done them wrong because they had no money, they had to stand in breadlines, and they had no money to pay landlords.
3. They can look their landlord in the eye because they have money to pay him.

Page 114—Eleanor Roosevelt Quiz
1. a, b, c
2. b, c, d
3. a, b
4. d
5. a, b
6. Answers will vary but should include statements about segregation, poverty, innovation, the need for entertainment and diversion, and social awareness.
Expanding the Nation Reader

Learning Objectives

✓ Students will identify and use various sources for reconstructing the events of the past, such as documents, letters, diaries, maps, textbooks, photos, and others. (Social Studies Content Objective)
✓ Students will identify and use parts of the book. (Nonfiction Reading Objective)
✓ Students will use details and description to write a review. (Persuasive Writing Objective)

Resources

• Expanding the Nation readers
• Copies of student reproducibles (pages 28–32)
• Going West primary source overhead transparency

Before Reading

1. Complete the Introductory Activity (page 22) with the whole class. Then, divide your students into ability-based reading groups. The students who read this book should be reading on or above the fifth-grade reading level. For additional resources to teach this lesson’s objectives, see the appendix on pages 237–240.

2. Have the students look through the readers at the images for the Writing Activity. Divide the students into groups of four. Within their groups, they should choose images from the reader and brainstorm as many details about it as possible. Tell them they will be listing their details on a KWL class chart. Together as a group complete the K (What do I know?) and the W (What do I want to know?) parts of the chart. Later, after the activities are completed help them complete the L (What did I learn?) part of the chart.

3. Reading Activity—Tell students they are going to be learning about parts of the book. The students should complete a textbook inventory with a partner. Write the following questions on the board to assist them with their inventories:
   • Is there a preface for this reader?
   • What does the preface tell you about the author’s purpose?
   • Look at the table of contents. How many chapters are there in this book?
   • Look through the pages of the book. What kinds of graphics are used? List them.
Before Reading (cont.)

3. Reading Activity (cont.)
   • Are there any words in bold print? List three bolded words that sound interesting to you.
   • Is there a glossary? Write the definitions to three words that sound interesting.
   • Is there an index? How will the index be helpful to you?

4. The Social Studies Activity will help the students use the table of contents. Assign chapter titles to the students. For their titles, they will be researching at least one source that could have been used for documentation for that historical event (for example, a letter for the Louisiana Purchase or a photo for the Alamo).

During Reading

5. Tell the students they are going to do a jigsaw reading. Just like parts of a puzzle are put together to see the picture as a whole, each student will read a part of the book, then come together to put the whole book together. Assign each student one or two chapters from this reader. Students are to read the chapters silently while taking notes on the important details of the chapters. Give them ample time to read and record the details. Bring them back together as a group. Have each student teach the chapter that they read to the rest of the group.

6. The Social Studies Activity will make students aware of primary sources (i.e., letters, photos, journal pages, or other documents) referred to in their readers. As students read Expanding the Nation, they should make lists of sources in each chapter that they find mentioned in the reader. Use the 5Ws + H questions to describe details of the sources. What source was used? Who used it? When was it used? Where was it used? Why was it used? How was the source used?

7. Begin the Reading Activity by having the students choose partners for a second reading of the book, while they complete the above social studies activity. Have one partner read a chapter while the listener gets to ask the 5Ws + H questions at the end of the chapter. Both partners need to record the answers. Then they reverse roles for the next chapter.

8. After reading, complete Expanding Our Land (page 28) geography sheet with a partner. Show students the map of America in the 1800s. Ask them to answer the questions at the bottom of the page. Discuss the answers as a group. Possible answers to the questions are found on page 33.
9. If you would like, use the PowerPoint slide show of the reader (filename: expnding.ppt) as an electronic big book to review the book as a group.

10. After students are finished reading, have them go back through the readers and choose their favorite images to complete the Writing Activity. Each student should write reviews on a picture or document to persuade their classmates to research it further. Reviews should include as many details as possible. Encourage students to be persuasive and creative in their descriptions using as many sensory details as possible.

11. Have students do further research on a famous primary source from this period or the source they used in the writing activity above for the Social Studies Activity. Use the 5 W + H questions to learn details about the source. After the details are researched, they should pretend this primary source is a title of a new book they are writing. They must create a table of contents for their books with chapter titles and page numbers.

12. Assign the document-based assessment Remember the Alamo! (page 29) as a group activity with two or three in a group. Spend a few minutes looking at the images for details while comparing the two pictures. Then, have the groups answer the questions at the bottom of the page. Discuss the answers within their groups, and then discuss the answers as a group. Suggested answers are found on page 33.

13. For the final Reading Activity tell the students to go to the glossary section of the readers. With a partner they should choose five words from the glossary to brainstorm details and descriptions of the words. They may use the readers and any other sources to write descriptions of the words. Students should put the words in bubble maps using the details to describe the words as part of the maps.

14. A short posttest, Expanding the Nation Quiz (page 32), is provided for your use if you want to assess student learning from the reader. A Unit Document-Based Assessment exam is also provided on pages 212–223 to help you further evaluate student learning.

15. Finally, pull the students back into a whole group to have them complete the Concluding Activity on page 23.
Primary Source Overhead

Historical Background Information
This painting was done in 1873 by George A. Crofutt. The original oil painting was done by John Gast in 1872. The painting shows Americans moving westward including the eventual expansion of the railroad. The expansion is being led by an allegorical figure depicted as a lady dressed in white. This lady represents progress for America expansion. Settlers are following her while animals and Indians are retreating from the figure as if they are afraid of her presence. In her hand she holds a schoolbook and telegraph wire which will connect the East to the West to make America one country. The railroad is following the woman which seems to indicate future progress, commerce, and more settlers going westward.

Teaching Suggestions
1. Place the Going West primary source transparency on the overhead. A copy of the painting is also provided on the CD-ROM (filename: gowest.jpg) if you would like to show them the painting using a computer presentation system.

2. Divide the students into four groups. Assign each group a quadrant of the painting to study. Tell them to study the painting as a whole, then look at their assigned sections using the following questions:
   - What is going on in their section?
   - Who or what is there?
   - Where are they going?
   - What can you tell us about the colors/shading of the painting?
   - Who or what does the white figure represent?
   - Are the people and animals following or retreating?
   - Is the painting supporting or opposing western expansion? How do you know?

3. When the groups have finished their discussions, have each group present the details of its quadrants to the group. How are the sections alike? How are they different?

4. Use the background information above to discuss the painting.

5. Give your students a copy of Going West (page 30). Depending on your students, assign all the activities or just a few. Your more advanced learners may benefit from completing the Analysis, Synthesis, and Evaluation activities.

6. Place the students into pairs and have them complete the Welcome, Texas! (page 31) document-based assessment. Ask them to answer the questions at the bottom of the page. Discuss the answers as a group. Possible answers are found on page 33.
Expanding Our Land

Directions: Use this map and answer the questions below.

1. List at least five states in the country today that were part of the original Louisiana Purchase.

2. What states were necessary for railroad expansion as part of the Gadsden Purchase?

3. What western ocean bordered the United States after the westward expansion?

4. As a result of the westward expansion what country now bordered the United States to the south?

5. On another sheet of paper, answer the following question. In what new area of the western expansion would you choose to settle if you were moving west in the 1800s?
Directions: Look at the details of the two images. Answer the questions below.

1. How are the two images different?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. How are the images alike?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. What do you think was the original purpose of this building?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
**Going West**

**Directions:** Complete the following activities. Write your answers on another sheet of paper. (Your teacher will tell you which activities you must complete.)

<table>
<thead>
<tr>
<th><strong>Knowledge</strong></th>
<th>Where are the people in the painting going?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comprehension</strong></td>
<td>What or who do you think the woman represents?</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>What is significant about the animals and Indians moving to the West?</td>
</tr>
<tr>
<td><strong>Analysis</strong></td>
<td>How does the painting show that America is expanding as a nation and not dividing into two nations?</td>
</tr>
<tr>
<td><strong>Synthesis</strong></td>
<td>If America was expanding today what might a painting include? Illustrate American expansion today.</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td>What would be the order of importance for American westward expansion in the 1800s: telegraph wire, railroad system, explorers, the animals fleeing, the settlers, Indians retreating, education? How and why did you rank them in this order of importance?</td>
</tr>
</tbody>
</table>
Welcome, Texas!

Directions: Study the details of this political cartoon, and answer the questions.

1. Whom do you think these men represent?

2. Why is the ship called Texas?

3. Why are the men falling into the river?

4. What is the significance of the rope to which the men are holding?
Expanding the Nation Quiz

Directions: Circle the best answer for the multiple-choice questions. Write your response to the short-answer question on the back of this page or on another sheet of paper.

1. In 1803, what area of land did America buy from France?
   a. Louisiana Territory   c. northern California
   b. Great Britain   d. Seward’s Folly

2. What is Manifest Destiny?
   a. the belief that the United States had rights to the whole continent
   b. an approval of a treaty by the Senate and House of Representatives
   c. an agreement between the United States and Mexico
   d. a speech given by General Santa Anna at San Jacinto

3. Which statement is NOT true of Sam Houston?
   a. He was governor of Tennessee.
   b. He was the first president of the Republic of Texas.
   c. He fought in the War of 1812.
   d. He was a young congressman.

4. Which secretary of state made a deal with Russia to purchase Alaska?
   a. General Zachary Taylor
   b. William Henry Seward
   c. Guadalupe Hidalgo
   d. Andrew Johnson

5. Where was the battle that inspired Texans to continue fighting in Mexico?
   a. New Orleans
   b. The Rio Grande
   c. The Alamo
   d. Mexico City

Short-Answer Question

6. President James Monroe wrote a policy called the Monroe Doctrine. What were its two main points? Why was each one important?
Page 28—Expanding Our Land

1. All or parts of the following states resulted from the Louisiana Purchase: Arkansas, Colorado, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming.
2. Arizona and New Mexico
3. The Pacific Ocean was the western border.
4. Mexico bordered the new land to the south.
5. Students may choose an area near the ocean or a body of water for business purposes. They may choose near the city for conveniences, business, jobs, or people. They may choose near the mountains for hunting, privacy, and land.

Page 29—Remember the Alamo!

1. The first image is different from the second because it shows the Alamo was partially destroyed in battle. The second picture shows it has been rebuilt. The rebuilding shows an additional structure.
2. The images are alike in that the frontal structure is the same. They both represent a strong fortress of protection.
3. The building is a fortress for this area of San Antonio, Texas. It appears to be a strong structure that offers protection for the Texas soldiers.

Page 30—Going West

Knowledge—The people are going west to explore, settle, and claim land.
Comprehension—The woman represents an invisible force that seems to cause the people to move west. It shows a desire for expansion and adventure.
Application—The animals and Indians are significant because they are retreating or fleeing as the people move westward. This represents that the explorers and settlers will let no obstacle stop them. They will continue with progress no matter what.
Analysis—This painting shows that America is expanding and not dividing because all the people are moving in the same direction. It shows that they want to progress as a nation. The painting depicts education, communication, and transportation expanding. If they were dividing, there would be obvious signs of fighting, lack of unity and progress.
Synthesis—Answers may include space exploration and travel, oceanic progress, etc.
Evaluation—A suggested order of importance may be: explorers, animals fleeing, Indians retreating, settlers, education, railroad system, telegraph wire.

Page 31—Welcome, Texas!

1. These men represent people who are both for and against Texas becoming part of the Union. Some of the men are governmental candidates.
2. The ship represents the state of Texas and it is sailing into the United States to become part of the Union.
3. The men who are falling into the river are overpowered by the ones who want Texas in the Union. They seem to be losing their fight to keep it from being annexed.
4. The rope is attached to the ship and is on a pulley. The men in the river are holding tightly to the rope to try and pull the ship Texas away from the United States. They do not want it to become part of the Union.

Page 32—Expanding the Nation Quiz

1. a 2. a 3. d 4. b 5. c
6. The first point of the Monroe Doctrine was that all nations in America were free and independent, and should be respected. The second point was that no foreign country could set up new colonies in the American continents. These two points were important because they showed that the United States was taking a stand. It was willing to support its neighbors and fight for them if necessary. It also showed that America was going to protect itself no matter what happened.


**Pioneers of Light and Sound Reader**

**Learning Objectives**

Students will practice and monitor fluency through repeated readings. *(Nonfiction Reading Objective)*

Students will write informational pieces describing a science concept. *(Writing Objective)*

Students will explore concepts related to light and sound. *(Science Content Objective)*

**Materials**

- audio recording device
- chalkboard or white board
- chalk or wipe-off marker
- paper and pencils
- *The Sound of Waves* transparency and activity sheet (page 174)
- *Catch the Bouncing Ball of Light* activity sheet (page 175)
- *Hot Fashion* activity sheet (page 176)
- materials for Lab (see page 162)
- Reader Quiz (page 177)

**Before Reading**

1. Complete the Introductory Activity (page 158) with the whole class. Then divide the students into reading groups. The students who read this book should be reading below level.

2. Allow students the opportunity to discuss any difficulties they have when reading aloud. Ask them why they think reading aloud proficiently is important. Explain that the objective for today’s lesson deals with fluency, which involves elements such as reading aloud accurately, with expression, and at an appropriate rate.

3. Provide students with an example of poor reading fluency by reading a paragraph of text from page four of *Pioneers of Light and Sound*. Read in a choppy, monotone manner, with pauses in inappropriate places and mispronounced words.

4. After reading the paragraph, ask students what they noticed. Point out that this kind of reading is difficult to understand. Fluent reading increases our understanding of text and it also increases listeners’ understanding as well. Read the passage aloud again, this time reading accurately, smoothly, and with expression.

5. Distribute copies of *Pioneers of Light and Sound* and instruct students to page through the book, paying attention to the headings and subheadings. Then ask students to offer their thoughts about the information they will learn.
**During Reading**

6. Read the book with the students or have them read independently. After reading, assign pages for students to read for fluency practice.

7. Explain that reading with fluency often takes practice and encourage them not to get frustrated as they work on their reading fluency skills.

8. Explain that they will have the opportunity to read their assigned pages several times, monitoring progress with each reading. Write the following on the chalkboard:
   - First Reading: ___________________________________________________________
   - Second Reading: ________________________________________________________
   - Third Reading: ___________________________________________________________

9. Explain that after each reading, they will each reflect on their progress and write a comment about it. For example, after reading, a student might write a comment, such as, “Pretty good, but I stumbled over big words.” After the second reading, a student might write, “Much better, but I was still a little bit slow.” After the third reading, the student might write, “This was my best reading. I used great expression and I read smoothly.”

10. Allow students to use a recording device to record their readings for better evaluation of their efforts. Then gather students together and invite students to read their passages aloud to demonstrate fluency.

**After Reading**

11. Next, have students reflect on the concepts presented in the book. Ask the following questions:
   - What do you think was the most interesting point presented?
   - What information was new to you?
   - How would you explain this information to your family?

12. Distribute paper and pencils and have each student write a few paragraphs explaining a selected concept from the book.

13. Have the students consider how sound travels. Reread pages 4, 5, and 21 to review the different shapes of waves that make different sounds, and the effects they have on our ears. Explain that just as light waves have frequency, wavelength, and amplitude, so do sound waves. Review each of these terms on page 8.
After Reading (cont.)

14 Display the transparency. Discuss the effects different frequencies and wavelengths have on the sounds we hear.

15 Distribute The Sound of Waves (page 174) to students. Read through the experiment together. Allow time for the students to number the sounds in order.

16 Display a hand-held vanity mirror. Ask one student to show how his or her image is reflected on the mirror. When the student holds the mirror directly in front of his face, he or she cannot see much else around. Then ask the student to slowly turn the mirror. What happens to his or her image, and what he or she sees reflected back? Allow several students to experience this event. Explain that mirrors reflect light both ways, so that what you see in a mirror can also see you. The angle that the light is reflected is the same.

17 Distribute Catch the Bouncing Ball of Light (page 175) to students. Read the introductory information, and allow time for students to complete the illustrations. Provide protractors, if desired, for accurate measurements. Explain that the students will experiment more with this event when they make their periscopes in lab.

18 Review what the students learned about color. Explain that when light is absorbed or reflected, so are the light’s colors. When we see a color, we see the color reflected back to us. Connect what the students know about light and heat. Reread pages 8 and 9, which explain color.

19 Distribute Hot Fashion (page 176) to students. Review the information and experiment. Discuss the chart. What does the data tell the class? Allow time for students to answer the questions. Afterward, allow time for one or two students to share their responses to question #6.

20 Use the Reader Quiz (page 177) to further assess student learning.

21 Gather students together as a whole class to complete the lab activity (page 161–162).

22 Gather the students together as a whole class to complete the Concluding Activity (page 159).
The Sound of Waves

Mr. Kline’s science class tested their understanding of sound waves. They looked at sound waves to find out about pitch. Mr. Kline gave each group of students a tuning fork, push pin, tape, and wax paper. Each group taped the pin so that it hung over the edge of the tuning fork. The students struck the fork, and ran it quickly over the wax side of the wax paper. The tuning fork’s sound waves were recorded on the wax paper. Mr. Kline randomly collected all the papers. The class then had to order the papers from lowest sound (or pitch) to highest just by looking at the sound waves. They knew that the lowest sounding or pitched tuning fork had the longest wavelength and frequency.

Directions: The images below show the sound waves on the wax paper. Number them in order from lowest sound to highest sound.
Catch the Bouncing Ball of Light

Scientists often use reflections to control light waves. When light is reflected off a mirror, the image bounces off at a complementary angle. You will see this happen when you build your periscope in the lab.

Mrs. Jenkins’ class experimented with this idea. They darkened the room and shined a light at a mirror. They held a beach ball at the same distance as the light. They tried to angle the light and mirror so that the spot of light hit the beach ball.

Look at this example:
A flashlight beam that hit the mirror at a 45° angle bounced off (was reflected) at an opposite 45° angle.

Look at this example:
A flashlight beam that hit the mirror at a 30° angle bounced off (was reflected) at an opposite 30° angle.

Directions: Use the information above and what you read about in Pioneers of Light and Sound to match the angle of the flashlight beam. Draw the path of the light after it met the mirror, and the beach ball in the place where the light met it. Label the size of the angle on the opposite side of the mirror.

1.  
2.  
3.  
4.  

5. Bonus! What would happen if the flashlight beam were angled at 90°?
Hot Fashion

We have all heard not to wear black in summer because it absorbs the sun’s light. This light is white light. White light is also called visible light. It is made up of all the colors of the rainbow. Objects with color absorb all the colors except the one that is reflected back. This is the color we see. Is black the only color to absorb light and give off heat?

Mrs. Pyle’s science class experimented to see if any other colors absorb enough light to give off heat. They used red, yellow, blue, white, and black paper. They used five identical thermometers. They placed a thermometer under each colored paper on a sunny window sill. After ten minutes, they recorded the new temperatures. The chart shows their results. Each bar shows the increase in temperature after 10 minutes of light absorption.

Directions: Use the information from the chart and what you read about in Pioneers of Light and Sound to answer the questions.

1. Did all colors absorb light at the same rate?
2. Which color absorbed the most light?
3. Which color absorbed the least light?
4. What is white light?
5. What is the relationship between a light’s color and the shape of a light’s wave?
6. How can this experiment be helpful to you?
7. What other colors would you like to test? What results do you think you would get?
Reader Quiz

Directions: Use what you learned from reading Pioneers of Light and Sound to choose the best answer for each question.

1. Light and sound both travel as...
   a. particles.  
   b. tunnels.  
   c. waves.  
   d. substances.

2. What sets colors apart?
   a. atoms  
   b. frequency  
   c. amplitude  
   d. none of these

3. How did Louis-Jacques-Mandé Daguerre use light in art?
   a. sculpture  
   b. gallery paintings  
   c. photography  
   d. theater design

4. What are the correct steps, in order, to process a daguerreotype?
   a. Expose the plate to light; expose a copper plate to iodine; rinse the plate; develop the plate over heated mercury; fix the image  
   b. Expose the plate to light; develop the plate over heated mercury; expose a copper plate to iodine; rinse the plate; fix the image  
   c. Expose a copper plate to iodine; expose the plate to light; develop the plate over heated mercury; fix the image; rinse the plate  
   d. Expose a copper plate to iodine; develop the plate over heated mercury; rinse the plate; expose the plate to light; fix the image

5. Which two inventions led Thomas Edison to develop the phonograph?
   a. light bulb and electricity  
   b. telephone and telegraph  
   c. generator and electricity  
   d. silent movie and talking picture

6. What modern-day inventions were developed by improving Alexander Graham Bell’s ideas?
   a. telephone, cell phone, fax machine  
   b. automobiles, helicopters, airplanes  
   c. tape recorder, computer, CD-ROM  
   d. video games, virtual reality, simulations

7. How does a scientist’s study of light and sound affect you? Use details and examples from Pioneers of Light and Sound to explain your answer.
Pioneers of Light and Sound Answer Key

The Sound of Waves
5, 3, 4, 6, 1, 2

Catch the Bouncing Ball of Light

1. Students should have completed the light path equal to 10° opposite the flashlight beam, and the beach ball at an equal length as the flashlight. Students should also have labeled the reflected angle as 10°.

2. Students should have completed the light path equal to 25° opposite the flashlight beam, and the beach ball at an equal length as the flashlight. Students should also have labeled the reflected angle as 25°.

3. Students should have completed the light path equal to 75° opposite the flashlight beam, and the beach ball at an equal length as the flashlight. Students should also have labeled the reflected angle as 75°.

4. Students should have completed the light path equal to 85° opposite the flashlight beam, and the beach ball at an equal length as the flashlight. Students should also have labeled the reflected angle as 85°.

5. The beach ball and flashlight would be in the same place.

Hot Fashion

1. no
2. black
3. white
4. the combination of all colors
5. The light wave’s wavelength determines color.
6. Answers will vary. Example: I know which colors are best to wear on a sunny summer day.
7. Answers will vary.

Reader Quiz

1. c  2. c  3. c  4. c  5. b  6. a

7. Answers will vary. Example: Acoustics engineer, Victoria Cerami, uses the physics of sound to design and build IMAX theaters. These make movies better than normal theaters.