

**Title: A Comparison of the Environmental Movements through the Eyes of Its Participants****Overview**

The lesson is an overview of the Environmental Movements of the late 1800's, 1900's, and 1960's compared to the environmental movement of today. The lesson will emphasize the work of such leaders as Rachel Carson and John Muir, just to name a few scientists. Students will study primary sources from the Library of Congress to analyze the points of views of the American public and scientists during these time periods. The lesson will culminate in a letter- writing project using evidence collected during the unit.

**Objective:**

Students will be able to analyze and interpret the impact of the environmental movements on American Society.

**Time Required**

The entire unit will take four to five class periods, depending on the level of the students being taught these lessons.

- Day 1:
  - Political cartoon analysis=approx.10 minutes
  - Rachel Carson and DDT Lecture= approx. 25 minutes
  - Video clip/wrap up activity=10-15 minutes
- Day 2:
  - Review/Bell Ringer of Day 1 Lesson=5 minutes
  - Introduction of 1800's Environmental Movement via group work analyzing primary sources=25-30 minutes
  - Group presentations and conclusions=10-15 minutes
- Day 3:
  - Letter Writing Project Introduction=10 minutes
  - Student work on projects independently=35-40 minutes
- Day 4: (Optional)
  - Student work on projects independently-entire class period
- Day 5:
  - Student Letter Class Presentations=about 35 minutes
  - Unit Wrap up/Conclusions=15 minutes

**Recommended Grade Range**

Grades 7-12



**Subject / Sub-Subject**

Subject: Science

Sub-Subjects: Social Studies, English, and Technology Education

**Standards (PA Science)**

S3.A.1.1.2: Distinguish between fact and opinion

S3.A.1.1.1: 3.4.8B4: Explain how societal and cultural priorities and values are reflected in technological devices.

3.4.10.A2: Interpret how systems thinking applies logic and creativity with appropriate comprises in complex real-life problems.

**Credits**

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**PREPARATION****Materials Used**

PowerPoint slides, Library of Congress Website and printed materials, guided notes pages for lectures, computers/computer lab, video clips

**Resources Used/Works Cited:**

Block, Herbert. "Toxic Wastes." Library of Congress. 15 Dec. 1985. Web. 12 May 2015.

<http://www.loc.gov/pictures/item/2012647266/>

Delicate Monster. "Hidden History-Rachel Carson." YouTube. May 11, 2008. Web 12 May 2015.

<https://www.youtube.com/watch?v=ls-JY74M2Ik>

Haywood, H.L. "Lecture on Henry David Thoreau." Webster City Freeman. November 9, 1915.

Web 12 May 2015. <http://chroniclingamerica.loc.gov/lccn/sn85050913/1915-11-09/ed-1/seq-1/#date1=1836&index=11&rows=20&words=Henry+HENRY+Thoreau+THOREAU&searchType=basic&sequence=0&state=&date2=1922&proxtext=henry+thoreau&y=-219&x=-1038&dateFilterType=yearRange&page=1>

"Picturesque California." The Morning Call. December 24, 1893. Web 12 May 2015.

<http://chroniclingamerica.loc.gov/lccn/sn94052989/1893-12-24/ed-1/seq-17/#date1=1836&index=14&rows=20&words=John+Muir&searchType=basic&sequence=0&state=&date2=1922&proxtext=john+muir&y=-219&x=-1038&dateFilterType=yearRange&page=1>

"The Railway Laboratory." Bridgeport Evening Farmer. March 15, 1915. Web 12 May 2015.

<http://chroniclingamerica.loc.gov/lccn/sn84022472/1915-03-05/ed-1/seq-11/#date1=1836&index=12&rows=20&words=polluted+polluting+pollution&searchType=basic&sequence=0&state=&date2=1922&proxtext=pollution&y=-219&x=-1038&dateFilterType=yearRange&page=1>

"To Spread the Gospel of Conservation." The Salt Lake Herald-Republican. May 10, 1910. Web 12

May 2015. <http://chroniclingamerica.loc.gov/lccn/sn85058140/1910-05-01/ed-1/seq-28/#date1=1836&index=1&rows=20&words=conservation+movement&searchType=basic&sequence=0&state=&date2=1922&proxtext=conservation+movement&y=-219&x=-1038&dateFilterType=yearRange&page=1>

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**Description of Procedure****Part 1: Observe**

1. **Connect:** Connect to <http://www.loc.gov/pictures/item/2012647266/>
2. **Investigate:** With a partner, complete [Library of Congress analysis tool](#) worksheet



3. **Construct:** With another group of 2 students, reflect on the following questions:  
What was the artist's point of view and what purpose did the cartoon serve? Use evidence from your group's analysis worksheet.
4. **Express:** As a class, share findings to develop consolidated data set (graphic organizer on the board) about the cartoon.
5. **Wonder:** Discuss conclusions about cartoon and launch lecture answering this hypothesis question: What was the purpose of the environmental movement in the 1960's and who were its major players?
6. **Connect:** Connect to PowerPoint slides on Rachel Carson's achievements and DDT.  
(Teacher will develop these.) Have students take notes.
7. **Investigate:** Have students watch the following video clip:  
<https://www.youtube.com/watch?v=ls-JY74M2Ik>
8. **Construct:** Answer the following question: Why were Rachel Carson's findings important in supporting the environmental movement?
9. **Express:** Think-Pair-Share answer to question from previous step. Then, share findings with entire class.
10. **Wonder/Reflect:** On an exit slip, have students ask one question they would like to know about today's lesson that was not discussed in class.

## Part 2: Question and Make Hypotheses

1. **Connect:** Connect to yesterday's notes to briefly review material from previous class. After brief review, introduce students to a brief overview of the environmental movement in the 1800's via PowerPoint slides/timeline of events (Teacher will produce).
2. **Investigate:** Break students up into 4 groups of 4-5 group members. Assign each group one of the following primary sources:

**Group #1:** <http://chroniclingamerica.loc.gov/lccn/sn85050913/1915-11-09/ed-1/seq-1/#date1=1836&index=11&rows=20&words=Henry+HENRY+Thoreau+THOREAU&searchType=basic&sequence=0&state=&date2=1922&proxtext=henry+thoreau&y=-219&x=-1038&dateFilterType=yearRange&page=1>

**Group #2:** <http://chroniclingamerica.loc.gov/lccn/sn94052989/1893-12-24/ed-1/seq-17/#date1=1836&index=14&rows=20&words=John+Muir&searchType=basic&sequence=0&state=&date2=1922&proxtext=john+muir&y=-219&x=-1038&dateFilterType=yearRange&page=1>

**Group #3:** <http://chroniclingamerica.loc.gov/lccn/sn85058140/1910-05-01/ed-1/seq-28/#date1=1836&index=1&rows=20&words=conservation+movement&searchType=basic&sequence=0&state=&date2=1922&proxtext=conservation+movement&y=-219&x=-1038&dateFilterType=yearRange&page=1>

**Group #4:** <http://chroniclingamerica.loc.gov/lccn/sn84022472/1915-03-05/ed-1/seq-11/#date1=1836&index=12&rows=20&words=polluted+polluting+pollution&searchType=b>



[asic&sequence=0&state=&date2=1922&proxtext=pollution&y=-219&x=-1038&dateFilterType=yearRange&page=1](https://www.loc.gov/rr/education/teachingwithprimarysources/analysis-tool-worksheet.html)

3. Next, have students complete [Library of Congress analysis tool](#) worksheet based on their group's assigned primary source.
4. **Construct:** Have each group present their worksheet via graphic organizer on the front board. Have students reflect on the following questions: When was their primary source written? Who was the intended audience? Was the author for or against the environmental movement? Why?
5. **Express:** As a class, discuss the findings of each group. Have each group answer the questions from the previous step as they present their findings to the class.
6. **Wonder/Reflect:** Have students make conclusions about each primary source presented. As an end of class activity, have them hypothesize about the following: How did these primary sources influence the American public on the environmental movement during the time periods they were published? Can these sources be used as evidence for the modern day environmental (green) movement? Explain.

### Part 3: Draw Conclusions

1. **Connect/Reflect:** Connect to yesterday's class activity and discuss student answers to the hypothesis/reflection questions. Review key events from previous day's timeline on environmental movement.

### Part 4: Report Results and Create New

- A. **Write a Letter** to a US Congressman during any time period of the environmental movements (1800's-1960's) persuading them to support or not support the environmental movement.
  - a. Students must use the primary sources presented in class or any other primary source from the [Library of Congress](#) to support their position.
  - b. A Works Cited page will be required to be turned in with the final copy of the letter.
  - c. Students will present their letters to the class for a presentation grade.
  - d. **Reflect:** After all student presentations, students will reflect on and discuss the following questions as a class: How did the actions of environmentalists of the past influence our views of the environment today? What are some environmental issues from the modern day that you feel need to be addressed? What would you do to address these concerns to others?

### Extensions

This lesson is intended to serve as an introduction to an environmental/pollution science unit. This can also be used in social science classes as a study of how our attitudes have changed over time in regard to environmental issues.

### Evaluation

Informal evaluations via exit slip (Day 1), reflection/hypothesis questions (Day 2), and letter project and presentation (Days 3, 4, and 5)

