

## NATURE'S FIRST DEFENDERS

### Part 2: Early Conservation Philosophies and Indigenous Peoples

**Time:** 45 minutes (with homework) or 90 with in-class reading time and further discussion

#### **Objectives:**

The student will...

- Engage in a Socratic Seminar and use evidence from a text to draw conclusions.
- Explore the history of conservation and indigenous communities in the Yosemite Valley.
- Cite examples from research regarding how indigenous authority over land leads to greater conservation.
- Examine how conservation can serve as a pathway to respecting indigenous rights.

#### **Materials:**

- Student copies of the *Scientific American* article “How John Muir’s Brand of Conservation Led to the Decline of Yosemite” by Eric Michael Johnson: <https://blogs.scientificamerican.com/primate-diaries/how-john-muir-s-brand-of-conservation-led-to-the-decline-of-yosemite/>

#### **Introduction:**

The purpose of this activity is to extend and broaden your students’ understanding of the role of indigenous communities in the protection of the environment and to examine the history of conservation and its relationship with indigenous peoples. A Socratic Seminar will serve as a forum to discuss potentially controversial issues described in an article featured in *Scientific American* online.

A Socratic Seminar is a way to foster active learning, inquiry, and critical thinking skills in students. The teacher’s role in a Socratic Seminar is as a guide and coach. The ideal room set-up is for students to sit in a circle with the teacher as part of the circle and at the same height as the students. It’s important that the teacher relinquish a little bit of control during the discussion. It’s also important to accept that there may be periods of uncomfortable wait time while students think about the text and the discussion.

To begin the seminar, use an opening prompt (provided below). During the seminar, if the discussion stalls, move the discussion along using prepared prompts like those provided below. If the discussion goes off track, you can restate the opening prompt. If there are students who have not spoken during the seminar, you may ask “who hasn’t had a chance to speak?” If appropriate, you might also ask students to cite evidence from the text or ask them to relate their statements to what someone else has said. It will be very helpful if during the seminar you are taking notes about the main points of discussion.

At the end of the seminar, ask students to summarize the main points that were made in the discussion. To close the seminar, debrief with students about the process and share your own observations about the experience.

With respect to grading and assessment, some teachers offer points for participation in the seminar. At the end of the seminar, you could also have students write a reflection on the process and have them detail their initial perspective about the article and then have them comment on how the discussion may have shaped their ideas.

To learn more about Socratic Seminars, check out the following resources:

- National Paideia Center website: <http://www.paideia.org/>
- NSTA article on Socratic Seminars by Jeanne Ting Chowning: [http://learningcenter.nsta.org/product\\_detail.aspx?id=10.2505/4/tst09\\_076\\_07\\_36](http://learningcenter.nsta.org/product_detail.aspx?id=10.2505/4/tst09_076_07_36)
- To see a Socratic Seminar in action in the science classroom and hear advice from a teacher, check out the videos below:
  - Socratic Seminars: Patience and Practice by the Teaching Channel <https://www.teachingchannel.org/videos/bring-socratic-seminars-to-the-classroom>
  - Socratic Seminar in Science by Northwest Association for Biomedical Research (NWABR) <https://www.youtube.com/watch?v=9TckVI4e3Y0>

### **Suggested Flow:**

1. Give students the article to read as homework before the Socratic Seminar or allow class time for reading to ensure that all students have read the article. In order to participate in the seminar, they **MUST** have read the article. The article “How John Muir’s Brand of Conservation Led to the Decline of Yosemite” by Eric Michael Johnson can be found here: <https://blogs.scientificamerican.com/primate-diaries/how-john-muir-s-brand-of-conservation-led-to-the-decline-of-yosemite/>

**Consider printing the article and numbering each line for student use in citing evidence. It is much easier to cite evidence from the text when students can refer to a numbered paragraph.**

2. Before you begin the seminar, share the purpose of the discussion and the rules with the students.
  - a. The purpose: To understand the main ideas and evidence in the “How John Muir’s Brand of Conservation Led to the Decline of Yosemite” text through shared discussion and to form conclusions based on evidence from the text.
  - b. The rules for students:
    - No hand raising. Focus on the speaker and wait until it’s your turn to talk.
    - Only one person can speak at a time.
    - Be courteous to each other, even when disagreeing.
    - Respond to each other by name.
    - Listen carefully.
    - Monitor your air time.
    - Reference the text to cite evidence for your statements.
    - Keep an open mind and be willing to be flexible in light of new information.

3. Read aloud the Socratic Seminar opening prompt to students:

***The article you have read highlights the relationship between Native Americans who lived in Yosemite Valley and the preservation of biodiversity through their actions.***

- ***Summarize the research that supports their role in preserving biodiversity and protecting the environment.***
- ***Compare and contrast their actions to the conservation philosophy pioneered by John Muir.***
- ***Suggest possible worldwide consequences of the spread of John Muir’s conservation philosophy on indigenous populations.***

4. Below are **possible prompts** that you can use during the discussion if students need to be redirected or refocused. For each prompt, remind students to use evidence from the text to support their argument.
- John Muir described that Yosemite was “pure wilderness” and a place where “no mark of man is visible”. Is this an accurate description of the valley?
  - How did the valley change after the indigenous population was removed?
  - Describe the consequences of fire suppression in Yosemite Valley.
    - What were the ecological consequences? How were the trees affected?
    - What were the economic consequences?
  - Describe how Native Americans used fire to preserve biodiversity in the Yosemite Valley.
  - Were Native Americans effective stewards of Yosemite Valley? Why or why not?
  - Reflect on these quotes from the article:
    - “Native American groups had profoundly altered the landscape of the Yosemite Valley in ways that were both advantageous to them as well as to the local ecosystem as a whole. They were successful stewards of the forest, not because they had no impact on the environment, but because the forest was their home and they relied upon it for every aspect of their lives.”*
    - “In 2003 the harmful effects of these policies were denounced by indigenous delegates from around the world when they presented a joint declaration before the Fifth Parks Congress then being held in Durban, South Africa. “The strategy to conserve biodiversity through national parks has displaced many tens of thousands of very poor park residents, transforming them into conservation-refugees...First we were dispossessed in the name of kings and emperors, later in the name of state development, and now in the name of conservation.”*
5. To close the seminar, describe the ground breaking study from Nobel Prize winning economist Elinor Ostrom and her colleague Tanya Hayes conducted in 2007. Find the original study here <http://mckinneylaw.iu.edu/ilr/pdf/vol38p595.pdf>. Read the quote below to your students and have them answer the questions that follow:
- “[In a study] that compared vegetation patterns throughout 84 forests in 15 separate countries, only half of which were under national protection...they found no significant differences in vegetation density between forests that were protected and those that were not. However, there was one important criteria that made a difference: the direct involvement of local and indigenous populations. Those regions where local groups were able to define the rules for how their forest was managed had significantly higher vegetation densities than those that didn’t, regardless of their protection status.”*
- What implications does this study have for future conservation initiatives?**
  - How can conservation be a pathway to respecting the rights of indigenous people?**
6. To close, have a student or students summarize some of the main points that were raised during the seminar.

7. Before the end of class, be sure to debrief the seminar with students. You could ask them if the norms were followed and if they felt like there was enough participation. You could ask them how their viewpoints changed during the course of the discussion. Some students who are familiar with John Muir may be surprised to find out about his views on Native Americans. This may be worth discussing. Below are some current resources that examine this topic in more detail:

- Muir's Early Indian Views: Another Look at *My First Summer In The Sierra*, by Ross Wakefield, Sierra Club  
[http://vault.sierraclub.org/john\\_muir\\_exhibit/john\\_muir\\_newsletter/wakefield\\_indian\\_views.aspx](http://vault.sierraclub.org/john_muir_exhibit/john_muir_newsletter/wakefield_indian_views.aspx)
- John Muir's Legacy Questioned as Centennial of his Death Nears, Los Angeles Times  
<http://www.latimes.com/local/california/la-me-rethinking-muir-20141113-story.html>

8. As mentioned previously, as a final assessment of the activity, you could have students write a reflection on the seminar process and their final thoughts on the topic.