

**Seeing with two eyes:
Creating a student zine to help incorporate Indigenous knowledge into climate teaching**

**River Ridge High School Native Studies Program
World History through Native Perspectives Class, 2024-2025
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Context:

“Environmental justice as it is ordinarily conceived of is inadequate for tribal nations in the US, because it fails to acknowledge the broader histories of colonization and current frameworks of sovereignty, however limited they are within the modern State system.” - Dina Gilio-Whitaker, *As Long as Grass Grows*

At River Ridge High School, we have a unique five-course, dual-credited Native Studies program that focuses on the experiences, history, and culture of Native people in the United States and Indigenous peoples around the world. Our program exists because these experiences and knowledges are not part of mainstream settler curriculum, in any subject area. The expertise of Native peoples, who have lived on and stewarded these lands since time immemorial, is generally discredited, dismissed, or omitted entirely, whether in social studies courses, literature courses, or science or math courses. Competent and dedicated teachers believe that all science comes from Western culture and European empirical scientists, and that the frameworks of understanding most essential for 21st century students are exclusively the frameworks born out of Western tradition. These frameworks fall woefully short of being able to address the cataclysmic issues that are facing us now and will face our students as they enter the adult world.

Our 10th grade World History through Native Perspectives course spent eight weeks studying Indigenous land management practices, the epistemology of two-eyed seeing, historic and ongoing threats to Native knowledge and land stewardship, and the ever-present erasure of Native peoples in standard curriculum. Their goal, in creating this zine, is to help any and all teachers who want to teach about our changing climate consider whose perspective they are promoting through their curriculum, and in what ways that perspective limits students’ ability to imagine solutions for the problems we will all need to face together.

Standards:

Creating a zine to address the teaching of climate literacy addresses numerous Washington State Standards, as it requires not just content knowledge, but extensive, high-level critical thinking tasks. Because this project occurred in a World History course, it is aligned with the following Washington State Social Studies Standards:

SSS1:	Uses critical reasoning skills to analyze and evaluate claims.
SSS2:	Uses inquiry-based research.
SSS3:	Deliberates public issues
SSS4:	Creates a product that uses social studies content to support a claim and presents the product in an appropriate manner to a meaningful audience.
G1:	Understands the physical characteristics, cultural significance, and location of places, regions, and spatial patterns on the Earth ’s surface.
G2:	Understands human interaction with the environment.

G3:	Understands the geographic context of global issues and events.
C4.9-10.1	Use appropriate deliberative processes in multiple settings.
C4.9-10.4	Explain how social and political problems are addressed at the local, regional, state, tribal, national, and international level
H2.9-10.2	Summarize how cultures and cultural and ethnic groups have shaped world history (1450-present).
H2.9-10.3	Define and evaluate how technology and ideas have shaped world history (1450-present).
H2.9-10.4	Analyze multiple and complex causes and effects of events in world history (1450-present).
H3.9-10.1	Analyze and interpret historical materials from a variety of perspectives in world history (1450-present).
H3.9-10.3	Explain how the perspectives of people in the present shape interpretations of the past.

Because Native Studies sets goals and follows pedagogical practices that are distinct from those of traditional education, this project is also aligned with Native learning standards as well:

NK 360 Essential Understandings:

Science, Technology, and Society
American Indian knowledge can inform the ongoing search for new solutions to contemporary issues.
American Indian knowledge reflects a relationship developed over millennia with the living earth based on keen observation, experimentation, and practice.
Much American Indian knowledge was destroyed in the years after contact with Europeans. Nevertheless, the intergenerational transfer of traditional knowledge, the recovery of cultural practices, and the creation of new knowledge continue in American Indian communities today.
People, Places, and the Environment
The imposition of international, state, reservation, and other borders on Native lands changed relationships between people and their environments, affected how people lived, and sometimes isolated tribal citizens and family members from one another.

JLMSTI High School Outcomes

recognize landmark court decisions and legislation that affected and continue to affect Tribal sovereignty
understand that Tribal sovereignty protects Tribes' ways of life and the development of their nations
understand that Tribal, state, and federal agencies often work together toward the same goal

Unit Focus:

Because by its nature the zine project questions the epistemologies of Western climate science, we cover many of the Climate Literacy Principles. Most specifically, the following appear as part of the zine created by our students:

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1. How We Know: Scientists understand the climate system through interdisciplinary observations and modeling.
3. Causes: Burning fossil fuels and other human activities are causing the planet to warm.
4. Impacts: Rapid warming and other large-scale climate changes threaten human and ecological systems.
5. Equity: Climate justice is possible if climate actions are equitable.,
6. Adaptation: Humans can adapt social, built, and natural environments to better withstand the impacts of climate change.
8. Hope and Urgency: A livable and sustainable future for all is possible with rapid, just, and transformational climate action.

Student Sensemaking:

Teaching about climate change is directly relevant to the lives of students, especially high school students right now. Young people in high school are already well aware of the impacts of climate change. It is well-documented across social media and evident in their daily activities, when sports practices are canceled due to wildfire smoke or we miss days of school from record-breaking snowfall or unprecedented windstorms.

For this unit, taught in the winter and spring of 2025, we focused on the LA wildfires that were raging at the beginning of the year. Any current climate disaster, like the LA wildfires in 2025, serves as a starting point to show students a direct example of climate change that feels immediate to them. Like the LA fires, there are Native leaders and Native communities who are affected by and actively combating the climate crises that they continually face, so any similar issue would work to engage students in this unit.

Instructional Materials and Resources:

Reading:

- Climate crisis news articles
- Writings of Robin Kimmerer
- Writings of Linda Hogan
- Local issues articles: salmon population, dam removal

Video:

- Layla June TedTalk
- Robin Kimmerer
- News clips about climate crises
- Two-Eyed Seeing

People:

- Lauren Vasquez/Lummi School partnership
- Red Bird Camp Collective partnership (Jeremy Rouse, Leah Simeon)
- Guest speakers - Cynthia Iyall (Nisqually)

Unit Calendar

	M	T	W	Th	F
Week 1 <i>What is missing from mainstream coverage of climate crises?</i>	LA fires intro - read news article	LA fires article	Cultural burns video	Cultural burns video	Circle
Week 2 <i>How are Indigenous perspectives on climate change different from mainstream/Western perspectives?</i>	Lahina Fires - article & video	Layla June TedTalk, Robin Kimmerer video	Robin Kimmerer reading	Robin Kimmerer reading, Linda Hogan reading	Circle
Week 3 <i>What is two-eyed seeing and how</i>	Two-Eyed Seeing	Guest speaker - local land	Two-Eyed Seeing	Doomsday Clock article -	Circle

<i>can it be used to help address our climate crisis?</i>	intro/video	management & ecology	discussion	apply two-eyed seeing principles	
Week 4 <i>Can we apply two-eyed seeing to issues in climate change and environmental management?</i>	Dam removal & two-eyed seeing: Hydropower video critique	Lower Elwha dam reading	Dam removal with tribal partnership - Puyallup (reading)	Red Bird Camp Collective (RBCC) meeting #1 Introduction to zines	Circle
Week 5 <i>Do current science curriculums incorporate two-eyed seeing and Indigenous knowledge into teaching about climate change?</i>	River Erosion lesson critique	AP Environmental science lesson critique	Zine brainstorming	RBCC meeting #2 Brainstorm feedback	Circle
Week 6 <i>How can we create a tool to help other teachers incorporate two-eyed seeing and Indigenous knowledge into their teaching of climate change?</i>	Zine group work - research	Zine group work - research	Zine group work - research	RBCC meeting #3 Questions and research help	Circle
Week 7 <i>How can we create a tool to help other teachers incorporate two-eyed seeing and Indigenous knowledge into their teaching of climate change?</i>	Zine drafting	Zine drafting	Zine drafting	Zine drafting - share with Lummi School for feedback	Circle
Week 8 <i>How can we create a tool to help other teachers incorporate two-eyed seeing and Indigenous knowledge into their teaching of climate change?</i>	Zine edits	Zine production	Zine production	Zine production	Circle