



Experiencing Climate Change and Climate Justice Curriculum Integration

PPS Board of Education - September 22, 2020

Nichole A. Berg, Programs Manager for Climate Change and Climate Justice





Today's Agenda

- Orientation to the new Climate Change and Climate Justice High School Elective
- Experience a sample lesson from the course
- Questions and Answers regarding K-12 curricular integration





Climate Change and Climate Justice in PPS: A Recent Timeline

- [PPS Resolution 5272](#) (2016)
- [Superintendent Guerrero's Commitment to Climate Justice Education and Youth Advisory](#) (May 10, 2019)
- [Student Activism Re: Implementation of Resolution 5272](#) (May 14, 2019)
- [Board Response](#) (May 28, 2019)
- [PPS Hiring Announcement: Programs Manager for Climate Change and Climate Justice](#) (September 2019)





Together We Will

Oregon wildfires: Governor declares emergency, calls situation 'dangerous'



The New York Times

As Students Clamor for More on Climate Change, Portland Heeds the Call



Portland Tuesday weather: High wind, fire danger continue through afternoon



In addition to foundational literacy and knowledge, critical understandings of race and activism around climate change have become system-wide areas of learning.

-PPS reImagined





Core Values

Equity

Justice

Making a difference

Racial Equity and Social Justice

We believe in the fundamental right to human dignity and that generating an equitable world requires an educational system that intentionally disrupts—and builds leaders to disrupt—systems of oppression.





Overview of Elective



**Influential
and Informed
Global Stewards**



0	1	2	3	4	5
Launch Unit	Intro to Climate Change and Climate Justice	Climate Science and Climate Resilience	Climate Change Effects, Impacts, and Solutions	Climate Justice Politics and Economics	Capstone Project
<p>In this unit, students will build community and practice routines and procedures that will support them in engaging in complex topics related to the intersectionality of climate justice, issues of power and privilege, and build skills in empathy, perspective-taking, and personal reflection.</p>	<p>Students are introduced to the historic perspectives and experiences of traditionally marginalized groups in the context of global environmental conflicts. They will then research current stances and systems, as well as possible solutions derived from the groups in question (e.g. if examining impact on native groups, examine solutions put forth by that group or that bring justice to that group). Finally, students will design a system or solution and evaluate it using real-world data and supporting resources. They will finally refine their solution and present it to a community through a medium agreed upon with their teacher.</p>	<p>Students use core competing models represented in the 2018 UN Special Report on Global Warming to 1.5 and Indigenous Resilience Plans to identify core science in global systems and the leadership roles of Traditional Ecological Knowledge in understanding the science of resilience planning. Students will understand the scientific relationship between natural systems and human activity. Students will engage in three mini-projects focusing on climate science and impacts using primary science documents.</p>	<p>Students will research the causes and effects of a local case study involving climate justice, and study how they exacerbate and/or create detrimental impacts upon local environments and communities. In addition to this, students will be asked to draw connections between the local case study and the greater issue of climate change as a whole, as well as study the existing solutions frontline communities are advocating for. Students will share their research and understandings with others.</p>	<p>Students will research a specific climate law, policy or legal action, analyze its pros and cons, impact on the environment and on minority/frontline communities. By the end of the unit, students will understand the stances politicians and political parties have regarding climate issues, understand and discuss the efficacy of different bills, their pros and cons, how they interact with each other, and connect to larger changes like the Green New Deal.</p>	<p>In this unit, students will select an area of interest related to climate change and climate justice and conduct an independent project about it to be shared with the community in a format of the student's choosing.</p>



In Their Own Words



Aurora Waggoner



In Their Own Words

I'm excited to tell all my friends to take the class and it was an overall awesome experience, I think I learned a lot.

[What is one key takeaway?]
the work that goes into creating a class

[What worked for you?]
having student voice! we are the ones who have experienced so many different teaching styles and lesson plans and we know what works for us

This was a lot of fun and I'm excited for this course!

We need to have space in the school day for student led equity work that allows district wide student collaborations without missing classes - deep appreciation for all that participated in making this happen and will further the work

Together we can educate one another and create powerful curriculum about climate justice, front line communities and so much more and to de-center whiteness. Student voice is so important and needs to be lifted. I will be putting it center in all of the classes I teach not just CJ, I believe it is a key piece in meaningful education.

There is a lot of work to do to truly bring equity and awareness to education and make it non oppressive

I'd like to see more students at future design institutes: the balance Franklin had was extremely nice!



Sample Lesson from the Course

As we proceed through this lesson, please consider the following question:

In what ways might this type of lesson/curriculum support our district's priority System Shift of "Transformative Curriculum and Pedagogy" and the Graduate Vision of "Influential and Informed Global Stewards?"





Rise: Understanding the Impact of Climate Change Through Science and Storytelling

A Poem by Kathy Jetñil-Kijiner and Aka Niviâna

Lesson Adapted from <https://350.org/rise-from-one-island-to-another/#poem>





Lesson Outcomes, Part I

Learning Targets:

- I can analyze the different perspectives represented by the two speakers of the poem
- I can determine the meaning of words and phrases as they are used in this poem, including figurative and connotative meanings
- I can investigate past and present events where national/global interests are in conflict

Standards Addressed:

- Ethnic Studies.HS.15 Analyze and explain the multiple perspectives of ethnic and traditionally marginalized groups to investigate past and present events when national and/or global interests have been in conflict.
- CCSS.ELA-LITERACY.RL.11-12.4 Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)



Lesson Outcomes, Part II*

Learning Targets:

- I can organize data (e.g., with graphs) from global climate models (e.g., computational simulations) and climate observations over time that relate to the effect of climate change on the physical parameters or chemical composition of the geosphere
- I can describe what this data set represents.

Standards Addressed:

- Ethnic Studies.HS.15 Analyze and explain the multiple perspectives of ethnic and traditionally marginalized groups to investigate past and present events when national and/or global interests have been in conflict.
- HS-ESS3-5. Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems

*not addressed in this sample lesson



Building Background Knowledge: K-W-L

What do you **know** about the impacts of climate change

- Locally?
- Nationally?
- Globally?

[Jamboard Activity](#) (for participants)

<https://tinyurl.com/y3rd75uj> (viewable link for public)





Building Background Knowledge: K-W-L

What do you **wonder** about the impacts of climate change

- Locally?
- Nationally?
- Globally?

[Jamboard Activity](#) (for participants)

<https://tinyurl.com/y3rd75uj> (viewable link for public)





Two Perspectives

Kathy Jetñil-Kijiner

- Poet, Marshallese Ancestry
- Co-founded the non-profit Jo-Jikum, dedicated to empowering Marshallese youth to seek solutions to climate change and other environmental impacts threatening their home island
- One of 13 Climate Warriors named by Vogue in 2015 and Impact Hero of the Year by Earth Company in 2016

Aka Niviâna

- Inuk writer from Greenland
- Wishes to create nuanced conversations about not only climate change, but also colonialism and indigenous peoples rights
- Believes in the importance of representation and the inclusion of black, brown and indigenous peoples





Seeing and Hearing The Poem: *Rise*





Debrief: Two Perspectives

What did we learn from Kathy Jetñil-Kijiner about the impact of climate change and other environmental threats to life in the Marshall Islands?

What did we learn from Aka Niviâna about the impact of climate change and other environmental threats to life in Greenland?

Please respond using the “chat” or by unmuting yourself and speaking in whole group.





Reading the Poem: *Rise*

Figurative Language

- Use of words or phrases that have meanings from their literal definitions
- Similes, Metaphors, Personification, Onomatopoeia, Oxymoron, Hyperbole, Idioms, etc.
- Example: Sleeping giants → geographic features (atolls, sunken volcanoes)

Connotative Language

- “Hidden” layer of meaning
- Words that evoke certain emotion, cultural associations, or ideas
- Example: Rooted → connotation of ancestry, trees, life





Using Geographic Tools to Understand the Poem *Rise*

Google™ earth





Debriefing our Learning - K-W-L

What did you **learn** about the impacts of climate change

- Locally?
- Nationally?
- Globally?

[Jamboard Activity](#) (for participants)

<https://tinyurl.com/y3rd75uj> (viewable link for public)





Next Steps

In asynchronous learning, please complete the following tasks and document your learning on your reflection sheet:

- Explore Google Earth's [*Sea Level Rise and the Fate of Coastal Cities*](#)
- Research: Select one of the locations named in the poem, *Rise*, and research the historical events that shaped that place. How have humans impacted the environment and, specifically, what impact has this had on indigenous communities whose ancestors have called these places “home” for generations?
 - Bikini atoll
 - Runit dome
 - Marshall Islands
 - Greenland
 - Nuuk



In Closing

- PPS has taken many steps to implement Resolution 5272
- The Climate Change and Climate Justice High School Elective will be taught in six PPS high schools this year
 - Standards-based and yields elective credit *or* .5 Science credit recovery
 - Inquiry-focused
 - Project-based learning
 - Connection to community partners
 - Developed with attention to Racial Equity and Social Justice
- We are moving forward to complete integration in at least one unit per grade level in Science and Social Sciences
- Youth Advisory is in development

