Board Study Session
Tuesday, September 22, 2020 8:10 PM

Virtual

Agenda

I. 8:10 pm* - Climate Change / Justice Curriculum - 45 min. **or directly following the regular board meeting*
II. 9:15 pm - Community Engagement Framework - 45 min.
III. 10:00 pm - Adjourn

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

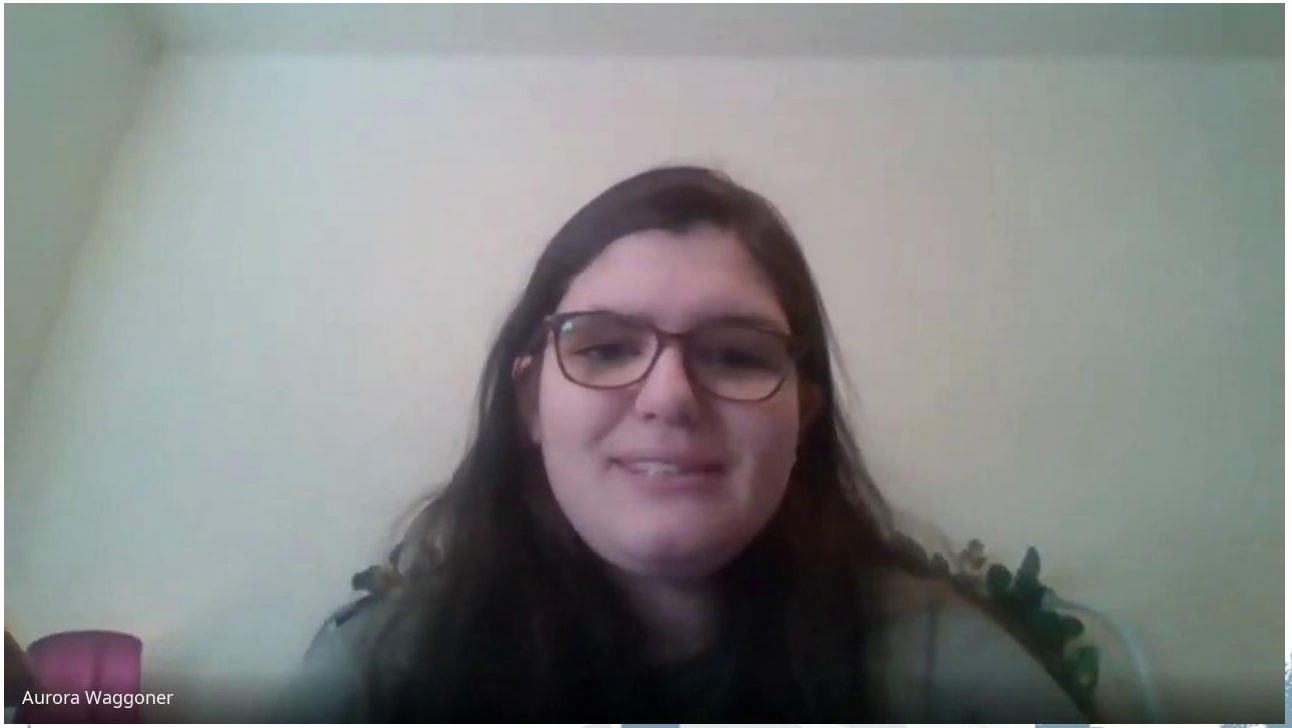
We believe in the fundamental right to human dignity and that generating an equitable world requires an educational system that intentionally disrupts—and builds leaders to disrupt—systems of oppression.

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**
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.	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.	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.	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.	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.	In this unit, students will select an area of interest related to climate change and climate justice and conduct an indepentent project about it to be shared with the community in a format of the student's choosing.

In Their Own Words



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 a 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*

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

Climate Change and Climate Justice Exemplar Curricular Materials

3rd Grade Science. . . . . .pg. 1
Teacher facing Unit Planner from Atlas (pg. 1)
Full Unit Lessons and all activity materials (pg. 4)

HS NGSS Physics. . . . . .pg. 22
Unit 6: Electricity, Power Production, & Climate Science

HS Climate Change and Climate Justice Elective. . . . . .pg. 25
Unit 1: Unit Planner from Atlas
Course at a glance

Life Science: The Buzz About Survival 2019-2020

5 Curriculum Developers

What is the purpose of the unit? What do we want students to know?

Essential Questions

How do organisms depend on their environment and each other in order to survive?

Big Ideas

Animals and plants depend on each other and the environment in order to survive.

Changing environments affect the survival of organisms in the past, present, and future.

Priority & Supporting Standards

OR: English Language Proficiency (2014)

Grades 2-3

ELP Standards

An ELL can..

2-3.1 construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing.

2-3.2 participate in grade-appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions.

2-3.3 speak and write about grade-appropriate complex literary and informational texts and topics.

2-3.4 construct grade-appropriate oral and written claims and support them with reasoning and evidence.

2-3.5 conduct research and evaluate and communicate findings to answer questions or solve problems.

2-3.6 analyze and critique the arguments of others orally and in writing.

2-3.7 adapt language choices to purpose, task, and audience when speaking and writing.

2-3.8 determine the meaning of words and phrases in oral presentations and literary and informational text.

2-3.9 create clear and coherent grade-appropriate speech and text.

2-3.10 make accurate use of standard English to communicate in grade-appropriate speech and writing.

NGSS: Science Performance Expectations (2013)

NGSS: Grade 3

3.Interdependent Relationships in Ecosystems

Performance Expectations

3-LS2-1. Construct an argument that some animals form groups that help members survive.

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals [illegible] ge.*

3-5.Engineering Design

Performance Expectations

3 Admin Help

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

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Students need to know (Content)

When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. (secondary to 3-LS4-4)

Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size. (Note: Moved from K–2) (3-LS2-1)

For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3)

Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4)

Observable phenomena exist from very short to very long time periods. (3-LS4-1)

Knowledge of relevant scientific concepts and research findings is important in engineering. (3-LS4-4)

Science assumes consistent patterns in natural systems. (3-LS4-1)

Students need to be able to do (Skills)

Construct an argument with evidence, data, and/or a model. (3-LS2-1)

Construct an argument with evidence. (3-LS4-3)

Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. (3-LS4-4)

Cause and effect relationships are routinely identified and used to explain change. (3-LS2-1),(3-LS4-3)

A system can be described in terms of its components and their interactions. (3-LS4-4)

Graduate Portrait

Teaching Tolerance and Social Justice

How will we gauge student learning?

Assessments

How will students learn? - High Leverage Instructional Strategies & Resources

Learning Engagements

See overview document: The Buzz About Survival Grade 3 Life Science/ELD Unit Overview

Differentiated Instruction

See overview document: The Buzz About Survival Grade 3 Life Science/ELD Unit Overview

Academic Vocabulary

AVID Strategies

See overview document: The Buzz About Survival Grade 3 Life Science/ELD Unit Overview

3

Instructional Resources and Materials

See overview document: The Buzz About Survival Grade 3 Life Science/ELD Unit Overview

Distance Learning Resources: PPS-HD

Distance Learning

Resources and Materials for Students

Teacher Tools

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3rd Grade
Life Science/English Language Development:
The Buzz About Survival

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English Language Proficiency Standards at a Glance	P.10
Language Development Routines at a Glance	P.12
Assessment Map	P.
Supplemental Resources and Activities	P.

NOTES:
*** To request copies of the Science Notebooks, email sciencekits@pps.net with:

1. Your grade level
2. Name of unit you are teaching
3. Number of students in your class

- Science Notebook link is here in case you need extra copies.

Find online units and revisions at the PPS Science website. Use the drop down menus to navigate to your grade level and unit.

Ask questions, give feedback here.

Unit Overview			
Essential Question ● How do organisms depend on their environment and each other in order to survive?			
Enduring Understandings ● Animals and plants depend on each other and the environment in order to survive. ● Changing environments affect the survival of organisms in the past, present, and future.			
Lesson Link	**Slideshow Link**	**Lesson Overview**	**Lesson Guiding Question**
Lesson 1 Phenomena Day!	Slideshow 1	Students are introduced to the phenomenon of honeybees and they make an initial claim about bee habitat.	*How do organisms depend on their environment and each other in order to survive?*
Lesson 2 Animal Groups Days 1 and 2	Slideshow 2	**2 Sessions** **Day 1 (45 min):** Students discuss the phenomenon of how humpback whales get their food in a process called "bubble net fishing". **Day 2 (45 min):** Then, students read an article about animal groups and jigsaw their learning. Students then return to the whale phenomenon and get a brief explanation.	*How do groups of organisms depend on each other in order to survive?*
Lesson 3 Animal Group Skits	Slideshow 3	Students watch a video and discuss reasons for animals living in groups. Student groups get assigned animals and perform a skit that demonstrates why that animal lives in a group. Students write a claim, evidence and reasoning about the survival of their animal group.	*How do groups of organisms depend on each other in order to survive?*
Lesson 4 Honeybees Work Together Day 1 and 2	Slideshow 4	**2 Sessions** **Day 1 (45 min):** Students learn information about how bees work together in a group. **Day 2 (45 min):** Students apply this information by	*How do honey bees work together to help the colony survive?*

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Lesson 4 REVISED Will replace original lesson 6/6/20	Slideshow 4 REVISED Will replace original slides 6/6/20	playing a simulation game. Students gather information to help them make a claim about why a group of animals form a group.	
Lesson 5 Researching About Bees Day 1 and 2	Slideshow 5	**2 Sessions** **Day 1 (45 min):** Students do preliminary research on bees to clear up any misconceptions. Students focus on how bees are interdependent with other bees, humans, and their habitat. Students are introduced to the phenomenon of Colony Collapse Disorder. **Day 2 (45 min):** In pairs, students read an article, complete a journal entry and share their findings with another set of pairs.	*How are humans, bees, other animals, and plants interdependent?*
Lesson 6 Colony Collapse Simulation Lesson 6 REVISED Will replace original lesson 6/6/20	Slideshow 6 Slideshow 6 REVISED Will replace original lesson 6/6/20	**2 Sessions** **Day 1 (45 min):** Students learn about the factors that contribute to colony collapse disorder through participating in another simulation. **Day 2 (45 min):** They gather evidence and begin to explain why colonies struggle.	*Why do bee colonies struggle?*
Lesson 7 Solutions to CCD Day 1 and 2 Lesson 7 REVISED Will replace original lesson 6/6/20	Slideshow 7 Slideshow 7 REVISED Will replace original lesson 6/6/20	**2 Sessions** **Day 1 (45 min):** Students will discuss solutions that address Colony Collapse Disorder. Students will read articles in groups and code text for use in a board meeting for the next day. **Day 2 (45 min):** Students are preparing to participate in a Board Meeting to discuss CCD.	*What are the advantages and disadvantages of some solutions of Colony Collapse Disorder?*
Lesson 8 Board meeting: Solutions to CCD	Slideshow 8	Students prepare arguments about solutions and have a whiteboard meeting. Some solutions are provided but students may come up with their own solutions based on the reading and their own background knowledge.	*What are the advantages and disadvantages of some solutions of Colony Collapse Disorder?*

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Lesson 9 Engineering Day 1 and 2	Slideshow 9	**2 Sessions** **Day 1 (45 min):** Students design a pollinator friendly community and evaluate the merits of their designs. **Day 2 (45 min):** Students complete their designs and evaluate the merits of peers' designs.	*How will my design work?*
Lesson 10 Final Assessment	Slideshow 10	Students make a final revision of their argument about bee habitats.	*How do organisms depend on their environment and each other in order to survive?*

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General Science Background for Teachers

Why are honeybees our phenomenon?

Bees form groups. Bees live in groups called hives. Typical hives consist of 20,000 to 50,000 bees. In hives, bees are subdivided into three castes. Each caste group is responsible for performing specific duties within the hive. Below are brief explanations of the duties of each caste.

Drones

The **drone** honey bees represent the males in the colony as they are reproductively active and produce the sperm used to fertilize the queen's eggs. However, they are unique in that they contain half the chromosomes (haploid) of the females and are developed forms of unfertilized female eggs. This literally means they have no fathers. The unfertilized eggs are laid in the larger horizontal cells called "drone comb". After 24 days (on average), the adult drone emerges with the most robust body of the three types and large eyes that meet on top of their head (dorsally). The primary and singular function of drones for the colony is to mate. Successful mating results in death, making these males entirely monogamous. On average, drones live for 20 days and are specifically produced by the colony on during specific times of the year when mating is happening (typically in spring).

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Workers

The **worker** honey bees are sterile females (99% true) that perform the great majority of the work for the colony. As females, they develop from fertilized eggs that are laid in standard horizontal cells (general comb). After 21 days (on average), the adult worker emerges and progresses through a series of jobs, switching as she ages. Generally, she takes care of the brood and other individuals first, then the maintenance of the colony, and finally is allowed to leave the colony for defense and foraging. Workers make up the majority of a honeybee colony. The lifespan for workers varies on the amount of work they do, based upon the wear and tear they put on their bodies. On average, the lifespan for workers is as follows: summer = 15-38 days, spring/fall = 30-60 days, winter = 100-140 days.

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Queen

The **queen** honey bee is the single egg laying female in the colony (99% true). As females, they develop from fertilized eggs that are laid in vertical cells (Queen's cup). After 16 days (on average), the adult queen emerges with an elongated abdomen that will soon be ready to mass produce eggs. As a virgin queen, she takes off on her mating flight, mates with multiple males (polyandrous) and returns to lay eggs for the majority of her life, until the colony swarms.

Honey bees are affected by environmental changes. Due to their dependence on the plants in their habitat and their constant interactions with each other, bees can be susceptible to changes and stressors in their environment. This will be covered in more detail in the "What is CCD?" portion of this background information.

Honey bees are adapted to live in a variety of places. Due to the popularity of their use in farming, honey bees are found on every continent except Antarctica. They are well-adapted to survive in many environments, as they successfully compete with native bees throughout the world. Some sources even refer to honey bees as an invasive species.

Honey bees form groups in order to survive. Other animals do as well. Why is this?
In this unit, students focus on three very broad reasons for forming a group: obtain food, defense, and cope with change. There are advantages and disadvantages to living in groups.

There are several major disadvantages to living in groups:
1. Greater competition for food, mates, sleeping sites, and water.
2. Increase parasite and disease load.

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There is an incidental reason why some animals live in groups. Concentrated valuable resources attract individuals. E.g., birds don't nest on cliffs because they benefit by being in a group. They nest together because they are attracted by a scarce resource: cliffs.

How do individuals benefit by living in groups?

1. Cooperative food collection. Wolves hunt together. By doing so each can more easily track and take down large game. Although the individual has to share meat, each still benefits from group hunting. Group hunting is less important in primates. Chimps hunt some but meat is not a major part of their diets. Group hunting is important in many human societies, however.
2. Sleeping together to conserve warmth. This explains why individuals form groups at night but it does not explain why groups are maintained during the day.
3. Shared information. By forming groups, individuals can exchange critical information (reciprocity). For example, frugivores let each other know where fruit trees are located.
4. Protection from predators. There are three reasons why an individual may live in group to avoid predation.
    a. Cooperative defense against predators. Several baboon males can deter a hyena but a solitary baboon will become prey.
    b. Selfish herd. To buffer themselves from predators sheep form herds, fish swim in schools, and birds fly in flocks. Predators can't eat an entire group. An individual lives in a group so as to get someone else between them and a predator. Safety in numbers. This reason is called the selfish herd because, obviously, individuals want to be in the central core of a group, not on the periphery.
    c. Cooperative defense against other groups of your species. Some primates form groups and defend valuable resources, such as fruit-trees, against groups of their own species. Chimp groups defend fruit-trees.
    -from University of Missouri-Columbia

Honeybees are considered to be eusocial, which is the highest level of social organization in a group. Eusocial animal organization has these characteristics: cooperative brood care, overlapping generations within a colony of adults, and a division of labor between reproductive and non-reproductive groups.

What is colony collapse disorder (CCD)?

What does it look like?

Colony Collapse Disorder (CCD) was first reported in 2006. Beekeepers began reporting high colony losses where the adult honeybees simply disappeared from the hives, almost all at the same time. There were few, if any, dead bees found in or around the hives. The queen and immature bees (brood) were often found in the hives with plenty of food stores, inadequately attended by a few adult bees.

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What causes it?
CCD is believed to be complex and a result of multiple factors. One **study** evaluated 61 factors, and found that no single stressor stood out as the primary cause of CCD. However, colonies affected by CCD had more pathogens and more types of pathogens than colonies without CCD. Pathogens are disease-causing organisms. A **group of stakeholders** that gathered in 2012 found a similar consensus, that a complex group of stressors and pathogens are associated with CCD.
-from the National Pesticide Information Center

Current research is now focused on these stressors as potential causes of CCD:

- Increased losses due to the invasive varroa mite (a pest of honey bees).
- New or emerging diseases such as Israeli Acute Paralysis virus and the gut parasite Nosema.
- Pesticide poisoning through exposure to pesticides applied to crops or for in-hive insect or mite control.
- Stress bees experience due to management practices such as transportation to multiple locations across the country for providing pollination services.
- Changes to the habitat where bees forage.
- Inadequate forage/poor nutrition.
- Potential immune-suppressing stress on bees caused by one or a combination of factors identified above.

No time? Watch overviews of these standards in less than 30 minutes?

- LS2.C Ecosystem Dynamics, Functioning, and Resilience
- LS2.D Social Interactions and Group Behavior
- LS4.C Adaptation
- LS4.D Biodiversity and Humans

Interested? Readings about the phenomenon/subject matter.

- NRDC-Would a World Without Bees Be a World Without Us?
- Planet Bee Foundation-The Vanishing of the Bees
- Teen Vogue-Colony Collapse Disorder, Explained
- Xerces Society-The Wilsonville Bee Kill

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NGSS Alignment in this Unit

Performance Expectations (PEs) Present in this Unit

- 3-LS2-1 Construct an argument that some animals form groups that help members survive.
- 3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. [Clarification Statement: Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.]
- 3-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.* [Clarification Statement: Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms.] [*Assessment Boundary: Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.*]

Science and Engineering Practices Present in this Unit

- Engaging in argument from evidence

Crosscutting Concepts Present in this Unit

- Cause and effect
- Systems and systems models

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English Language Proficiency Standards at a Glance

Overview of English Language Proficiency Standards in This Unit

There are 10 ELP standards that are consistent K-12. The lessons in this unit address the following.

		Lesson									
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
ELP Standards	1 – construct meaning	x	x	x	x	x	x	x			x
	2 – participate	x	x	x	x	x	x	x	x		
	3 – speak and write		x	x		x		x	x		x
	4 – construct claims	x		x	x	x	x	x	x		x
	5 – conduct research		x		x	x	x	x	x		
	6 – analyze claims							x	x		
	7 – adapt language			x					x		
	8* – determine meaning										
	9* – create clear speech and text										
	10* – standard English										

* ELP standards 8, 9, and 10 ongoing in every lesson

ELP Standards

1 - Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing
2 - Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions
3 - Speak and write about grade-appropriate complex literary and informational texts and topics
4 - Construct grade-appropriate oral and written claims and support them with reasoning and evidence
5 - Conduct research and evaluate and communicate findings to answer questions or solve problems
6 - Analyze and critique the arguments of others orally and in writing
7 - Adapt language choices to purpose, task, and audience when speaking and writing

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8 - Determine the meaning of words and phrases in oral presentations and literary and informational text
9 - Create clear and coherent grade-appropriate speech and text
10 - Make accurate use of standard English to communicate in grade- appropriate speech and writing

ELP standards and descriptors of proficiency levels available here.

Language Development Routines at a Glance

Language Development and Interaction Strategies	Lesson									
	1	2	3	4	5	6	7	8	9	10
Accountable Talk Bookmark										
Anticipatory Guide (template) (template 2)										
Bees and Flowers	x			x						
Board Meeting								x		
Clarifying Bookmark Task Description										
Cloze										
Coding the Text										
Collaborative Paragraph Writing			x							

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Collaborative Poster					x					
Discussion Diamond										
Double Entry Journal										
Four Corners										
Gallery Walk										
Give One, Get One		x					x			
Jigsaw Reading										
Information Gap activities		x								
Lines of Communication							x			
Mix and Mingle										
Novel Ideas Only										
Numbered Heads Together										
Partner Speaking and Listening Strategies										
Postcard Home										
Quick Write										
Quiz, Quiz, Trade										
Reading with a focus		x				x				
Role Play/Simulation			x	x		x				
Sentence Frame/Starters										

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Six Word Summary										
Sort (closed, open)										
Think, Pair, Share/ Think, Write, Pair, Share										
Three Step Interview										
Vocabulary Review Jigsaw										

List of Common Language and Interaction Strategies with instructions

Need more ideas for supporting language learners? Visit the PPS ESL website and look under *Instructional Strategies*.

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Assessment Map
Pre- and post-assessments provide a way for teachers to determine student learning over the course of the unit. They are designed to measure the key science and language standards. In addition, formative assessments allow teachers and students to measure progress across the lessons, and allow teachers to make needed adjustments. Blue text indicates that the assessment is oral. A language recording sheet is provided to record oral language to measure progress on ELD targets.

Lesson	NGSS	ELD	Assessment
1: Phenomenon: Which habitat is better for bees?	CER bee habitat	Make a claim and support it with evidence and reasoning	Initial bee habitat argument (NGSS) Bees and flowers (ELD)
2: Animals in groups - reading for information	Describe group behavior in animals	Read for information; explain why animals live in groups	Exit Ticket (NGSS & ELD)
3: Animals in groups - skits	Show (act out) how animals survive by living in groups	Make a claim and support it with evidence and reasoning	CER notebook page (NGSS & ELD)
4: Honey bees work together	Bees and other animals form groups for a number of reasons	Explain phenomenon using cause and effect language	Lesson 4 assessment (NGSS) Bees and flowers (ELD)
5: Researching about bees	Use information from research to find evidence about interdependence.	Explain interdependence by using cause and effect language	--- (NGSS) Poster presentations (ELD)
6: Colony collapse simulation	Participate in simulation that models how bees work together in a colony	Explain why bee colonies struggle (cause and effect)	Simulation (NGSS) Science notebook (ELD)
7: Solutions to	Read to identify solutions to	Express cause and effect using if	CCD Planning Sheet (NGSS)

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Colony Collapse Disorder (CCD)	a problem and the advantages/disadvantages of those solutions.	+ then + modal	Give one get one (ELD)
8: Solutions to Colony Collapse Disorder (CCD) - Board Meeting	Make a claim and support it with evidence and reasoning	Make a claim and support it with evidence and reasoning	Exit ticket (NGSS & ELD)
9:			
10:			

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Supplemental Resources and Activities

Pamphlet-Attracting Pollinators to your Garden Using Native Plants
Poster-Bumblebees of the Eastern United States
Poster-Bumblebees of the Western United States
Poster-Native Bees

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Acknowledgements

This project was made possible due to collaboration between Science and ESL TOSAs and the hard work of PPS classroom and ESL teachers.

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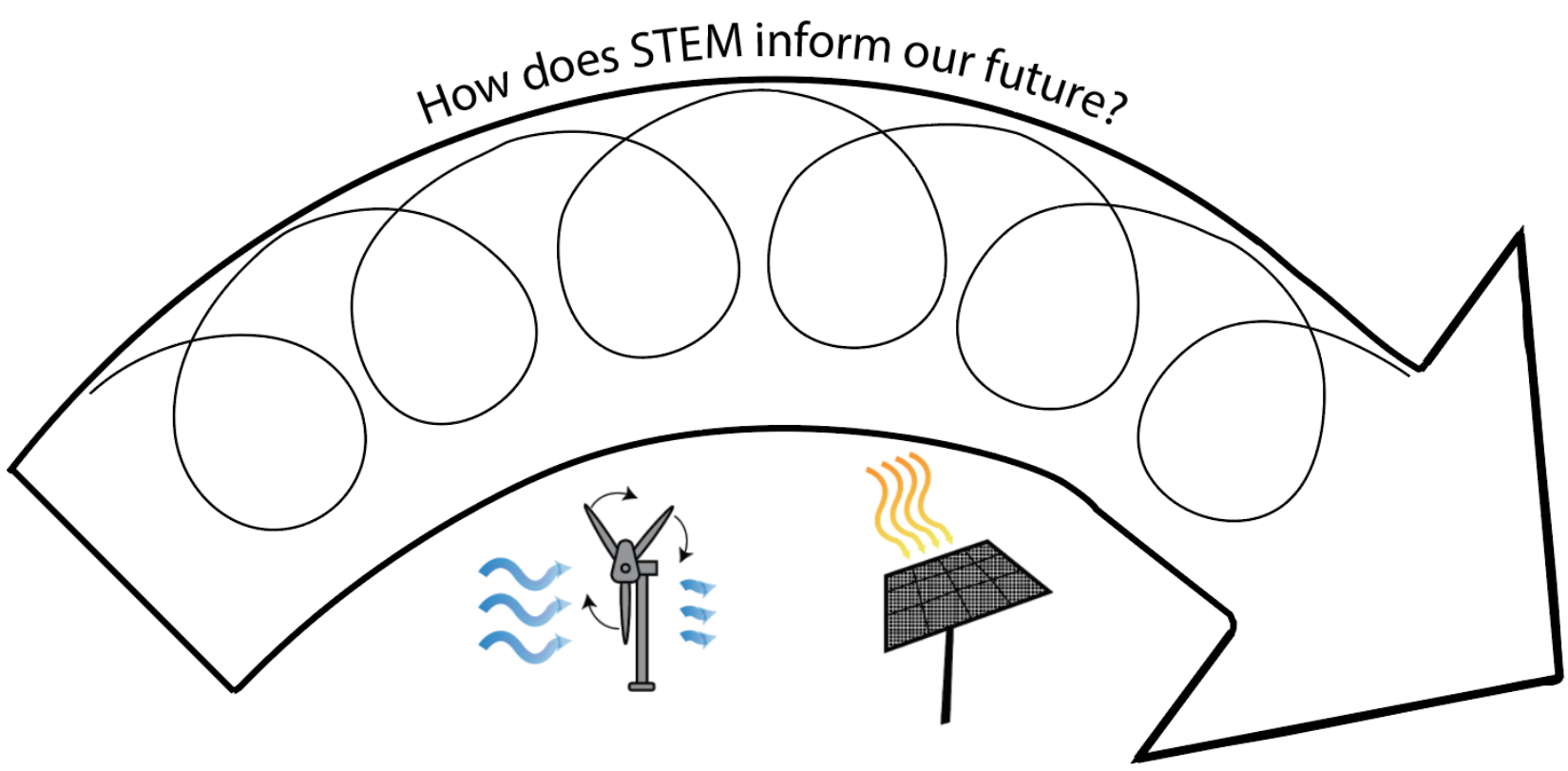
Student Calendar for
Unit 6: Electricity, Power Production, & Climate Science



(Key to reading document) Task Image Task Project Goal Dates	**Should be able to answer this by the end of the task.** **Should be able to do this by the end of the task.** **What we did:** Description of the prioritized learning task. **Activities and Resources:** 1. Links and references for the materials you need to complete the task. **Homework** *See additional resources at the bottom of the table.
  Voices of the World **Project Goal:** Build common background knowledge and appreciate the multifaceted nature of power production and our climate. add_dates	**What are the different perspectives on power production and climate change?** **Be able to convey important characteristics about different energy sources used for Power Production.** **What We Did:** We ask what is our plan? Then began exploring Electricity, Power Production, and Climate Science. **Activities and Resources:** 1. Packet for Unit a. 6P1 - Part 1 of 2 b. 6P2 - Part 2 of 2 2. Voices of the World a. Paragraphs for reading 6Activity - Voices Around the World 3. Intro to 50 Year Energy Plan a. 6EP - 50 year Plan Portfolio b. In the Oregon Department of Energy 2018 Biennial Energy Report read Chapter 1 - Energy Numbers pages 1-3 and Chapter 2 - Climate Change pages 1 and 11. c. Write our problem statement d. 6CT - Initial 50-Year Energy Plan with Computational Thinking 4. How do we create power? a. Background research on power production in Packet Part 1 using Student Energy website b. Read How Does Your State Make Electricity? article 5. Exploring our engineering challenge - a. Determine our constraints and criteria in our Portfolio 6. Introduce in-class essay on Exploring Our Engineering Challenge a. 6CER - Section 1 - Exploring Our Engineering Challenge b. Graphic organizer pages in Packet Part 2 7. Kick-off playing Energy City simulation a. 6Simulation - Energy City Strategy and Reflection **Homework:** ● Scan an interesting part of the Oregon Department of Energy 2018 Biennial Energy Report ● Read about the approach to at least 2 of the energy sources (pgs. 20-22) and respond in the discussion thread

Motors and Generators

Project Goal: Take a deep dive into the physics of power production.

add_dates

How do electric guitars work?
Why is our large scale power production and distribution the way it is?

Be able to our technical terms from electricity and new ones we discover to explain the basic physics of how electric guitars work.
Be able to use the big ideas of electricity to explain the design of our large scale power grid.

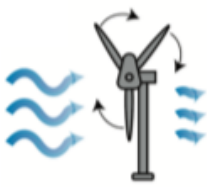
What We Did: Students will learn how to build a speaker.

Activities and Resources:

1. Begin in-class essay on Exploring Our Engineering Challenge
2. Exploring Power Production:
    a. Water Bucket Analogy
    b. The Basic Physics of Electric Power in Packet Part 1
3. Build a Speaker
    a. Background info on how to build a speaker
    b. Instructions for Building a Speaker
    c. Building, Exploring, and Discovering How Speakers Work in Packet Part 2
    d. Construct an argument to describe how speakers work in Packet Part 2
4. How do motors work?
    a. Pages in Packet Part 2
5. Exploring generators:
    a. Phet - Faraday's Law
    b. Pages in Packet Part 2
    c. The Basic Physics of Electric Generators in Packet Part 2
6. Quiz on Basic Physics of Motors and Generators
7. Scaling up to Large-Scale Power Production
    a. Getting Big: Large-Scale Power Production in Packet Part 1

Homework:

- 6extension - Podcast NPR Looks into Geothermal in the America West
- Phet - Circuit Construction
- Watch Intro Video and Play NOVA's Energy Lab Simulation



Wind Turbine Engineering Project

Project Goal: Investigating what it takes to scale up power production.

add_dates

Be able to make data-informed decisions about how to best design your wind turbine to maximize its power production.

Orally communicate with the aid of graphs your experimental results about your wind turbine design parameter

What We Did: Students will design their own wind turbine.

Activities and Resources:

1. Introduce Wind Turbine Project in Packet Part 1
2. How does a wind turbine work?
    a. Energy bar charts in Packet Part 1
    b. Sankey diagram Packet Part 1
    c. Written Explanation Packet Part 1
3. Go over design exploration (parameters to test) of a wind turbine
    a. 6L1 - Lab Template for Investigating a Parameter of Wind Turbine Design
    b. 6E - Wind Turbine Pre Made Blades Specifications
4. Begin data collection on wind turbine
    a. 6L1 - Data Table for Investigating a Parameter of Wind Turbine Design
5. Optional Slides: 6Simulation - NOVALABS: Design a Renewable Future
6. Data Analysis and presentation
7. Engineering Rationale for Final Design Outline in Packet Part 1
8. Optimize wind turbine design and collect data

Homework

- Vernier Kidwind Wind turbine kits
- See this spreadsheet with the pre-made blade specifications

Engineering Slice: Optimize a Solar Array

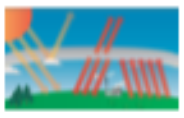
Project Goal: Experience an engineering slice and reveal the complexity of light.

add_dates

What we did: Solar Power is the other expected major growth area for renewable energy and allows students to tackle a new mathematical pattern we have a short engineering slice to optimize the angle of a solar array.

Activities and Resources:
Optimizing a Solar Cell Lab

- 6L2 - Lab Template for Optimizing a Solar Cell
- 6L2 - Data Table for Optimizing a Solar Cell
- 6Extension - Wave Particle Duality



Climate Science

Project Goal: Learning to track how energy flows in and out of the Earth System, in order to analyze the impact of various power production means.

add_dates

How do we create a mathematical model that mimics the data we collect?
How do I predict the future for a different system by finding a new pattern in the data?

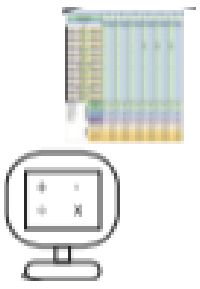
Explain the Mathematical Model you have created.

What we did: Having built up our scientific understanding of how generators work and what it takes to scale them up, we are left with cultivating an understanding of the climate impact different power production means have. This launches us more broadly into climate and the earth system over very large time scales.

Starting with climate vs weather we work through some of the basic science of climate science. Next we dive into the 10 factors called out in the NGSS.

Activities and Resources:

1. Background information for teachers from The Framework for K-12 Science Education
    a. ESS2.D: WEATHER AND CLIMATE pages 186-191
    b. ESS3.D: GLOBAL CLIMATE CHANGE pages 196-199
2. Exploring Climate Models
    a. Simulation
3. Intro Earth System through Sankey Diagram (Packet Part 1 page 17)
4. Looking at the Earth System through multiple scenarios
    a. 6Activity - Sankey Manipulative for Activity (Yellow)
    b. 6Activity - Sankey Manipulative for Activity (Red)
5. Quiz on Basics of Climate Science
6. Philosophical Chairs for Climate Impact Rubric



Using Computational Thinking to Design a 50-Year Energy Plan

Project Goal: Integrate all of our knowledge and skills, including computational thinking to create the best 50-year Energy Plan.

add_dates

What we did: Putting it all together through yet a new form of computational thinking.

Students will simply put in a reasoned guess, then through the computer quickly giving feedback on the constraints and criteria the student will iterate their design until they have optimized it to their own satisfaction.

Upon completing their plan, they will partner up to share plans and evaluate the strengths and weaknesses of the two competing plans.

Then comes our culminating CER of the year, the five-paragraph essay. There are numerous supports and often students are proud of their understanding of the real-life, complex issue of climate change so while it is a lot of work to write the essay they are primed to do so.

Activities and Resources:

1. 50 Year Energy Plan
    a. 6CT - 50 Year Energy Plan with Computational Thinking

Additional Resources:
Patterns Physics Drive Folder

For information on NGSS Performance Expectations, including which Science & Engineering Practices and Crosscutting Concepts are highlighted in the unit, see the:

NGSS Alignment Matrix for the Patterns Physics

ELP Standards:
9-12.1 - construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing
9-12.2 - participate in grade-appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions
9-12.4 - construct grade-appropriate oral and written claims and support them with reasoning and evidence
9-12.5 - conduct research and evaluate and communicate findings to answer questions or solve problems
9-12.6 - analyze and critique the arguments of others orally and in writing
9-12.10 - make accurate use of standard English to communicate in grade-appropriate speech and writing

Unit Essential Question: How does STEM inform our future?

Intro to Climate Change and Climate Justice

3 Curriculum Developers

What is the purpose of the unit? What do we want students to know?

Essential Questions

- What does climate change mean for different communities, especially front line communities, individually, locally, and globally?
- What are some complexities to consider when finding effective solutions to human-created climate change?

Big Ideas

- Climate change is multifaceted and more than just carbon, it is an ethical issue with serious impacts on marginalized communities.
- Climate Justice focuses efforts on designing solutions for the most directly and disproportionately impacted frontline communities and changes systems of oppression.
- People from marginalized communities are working as scientists and activists to solve issues resulting from climate change.

Priority & Supporting Standards

Priority

PPS: Ethnic Studies

High School

Ethnic Studies

Ethnic Studies

- ES.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. (History)

OR: Social Sciences (2018)

OR: Grades 9-12

Social Science Analysis

Students will be able to:

- HS.75 Evaluate options for individual and collective actions to address local, regional and global problems by engaging in self-reflection, strategy identification, and complex causal reasoning.

NGSS: Science Performance Expectations (2013)

NGSS: HS Life Sciences

HS.Interdependent Relationships in Ecosystems

Performance Expectations

- HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.*

NGSS: HS Engineering Design

HS.Engineering Design

Performance Expectations

- HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
- HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.

OR: Social Sciences (2018)

OR: Grades 9-12

Civics and Government

Admin Help 3

Students will be able to:

- HS.11 Examine the pluralistic realities of society recognizing issues of equity and evaluating the need for change.

Geography

Students will be able to:

- HS.42 Use geographic data to analyze the interconnectedness of physical and human regional systems (such as a river valley and culture, water rights/use in regions, choice/impact of settlement locations) and their interconnectedness to global communities.
- HS.46 Assess how changes in the environmental and cultural characteristics of a place or region influence spatial patterns of trade, land use, and issues of sustainability.
- HS.47 Explain how political and economic power dynamics throughout time have influenced cultural identity and environmental characteristics of various places and regions.

History

Historical Knowledge

- HS.66 Examine and analyze the multiple perspectives and contributions of ethnic and religious groups, as well as traditionally marginalized groups within a dominant society and how different values and views shape Oregon, the United States, and the world.

Social Science Analysis

Students will be able to:

- HS.77 Engage in informed and respectful deliberation and discussion of issues, events, and ideas applying a range of strategies and procedures to make decisions and take informed action.

Students need to know (Content)

Student will understand:

- Humanity faces major global challenges today, such as the need for supplies of clean water and food or for energy sources that minimize pollution, which can be addressed through engineering. These global challenges also may have manifestations in local communities.
- New technologies can have deep impacts on society and the environment, including some that were not anticipated. Analysis of costs and benefits is a critical aspect of decisions about technology.
- When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts.
- New technologies can have deep impacts on society and the environment, including some that were not anticipated. Analysis of costs and benefits is a critical aspect of decisions about technology.
- Moreover, anthropogenic changes (induced by human activity) in the environment — including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change — can disrupt an ecosystem and threaten the survival of some species.
- Biodiversity is increased by the formation of new species (speciation) and decreased by the loss of species (extinction).
- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value.
- When evaluating solutions it is important to take into account a range of constraints including cost, safety, reliability and aesthetics and to consider social, cultural and environmental impacts.
- Much of science deals with constructing explanations of how things change and how they remain stable.

Students need to be able to do (Skills)

Students can:

- Analyze a major global problem
- Describe* the challenge with a rationale for why it is a major global challenge
- Describe*, qualitatively and quantitatively, the extent and depth of the problem and its major consequences to society and/or the natural world on both global and local scales if it remains unsolved
- Document background research on the problem from two or more sources, including research journals
- Define the process or system boundaries, and the components of the process or system
- Identify the physical system in which the problem is embedded, including the major elements and relationships in the system and boundaries so as to clarify what is and is not part of the problem
- Describe* societal needs and wants that are relative to the problem (e.g., for controlling CO_2 emissions, societal needs include the need for cheap energy)
- Define the criteria and constraints of a given major global problem
- Specify qualitative and quantitative criteria and constraints for acceptable solutions to the problem
- Design a solution that involves reducing the negative effects of human activities on the environment and biodiversity, and that relies on scientific knowledge of the factors affecting changes and stability in biodiversity. Examples of factors include but are not limited to:
  i. Overpopulation;
  ii. Overexploitation;
  iii. Habitat destruction;
  iv. Pollution;
  v. Introduction of invasive species; and
  vi. Changes in climate.
- Describe* the ways the proposed solution decreases the negative effects of human activity on the environment and biodiversity.
- Describe* and quantify (when appropriate) the criteria (amount of reduction of impacts and human activities to be mitigated) and constraints (for example, cost, human needs, and environmental impacts) for the solution to the problem, along with the tradeoffs in the solution
- Evaluate the proposed solution for its impact on overall environmental stability and changes
- Evaluate the cost, safety, and reliability, as well as social, cultural, and environmental impacts, of the proposed solution for a select human activity that is harmful to an ecosystem
- Refine the proposed solution by prioritizing the criteria and making tradeoffs as necessary to further reduce environmental impact and loss of biodiversity while addressing human needs

Graduate Portrait

- 3. Transformative Racial Equity Leaders
- 7. Influential and Informed Global Stewards

Teaching Tolerance and Social Justice

How will we gauge student learning?

Assessments

Milestone 6 Environmental solution Ranking Tool

How will students learn? - High Leverage Instructional Strategies & Resources

Learning Engagements

See attached Unit Planner and related Milestone documents

Unit 1 - Intro to Climate Change and Climate Justice

Differentiated Instruction

Academic Vocabulary

Tier 2:
Tier 3:
Frontline Community
Privilege
Climate Justice
Marginalized
Oppression
Climate justice

Instructional Resources and Materials

PPS Login Required for these links.

Atlas Version 9.6
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Rise: From One Island to Another

Lesson Adapted from https://350.org/rise-from-one-island-to-another/#poem (accessed Sept. 17, 2020)

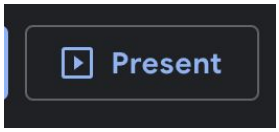
Watch this poetic expedition between two islanders, one from the Marshall Islands and one from Kalaallit Nunaat (Greenland), connecting their realities of melting glaciers and rising sea levels. Kathy Jetñil-Kijiner and Aka Niviâna use their poetry to showcase the linkages between their homelands in the face of climate change. Through this video we get a glimpse at how large, and yet so small and interdependent our world is.

The science behind climate change and its causes has been clear for decades. And yet, it has not been enough to drive the change we need to see in order to salvage our planet. We hope this poem can spark the emotion and drive needed for more people to rise and take action.

This is an invitation to take a few minutes to watch this film, unplug from your daily distractions, immerse yourself in the beauty of our shared home, and let the poetry heal.

Student Reflection Journal

Activity	Notes
K-W-L Jamboard Activity ● *What do you know about the impacts of climate change locally, nationally, and globally?*	
K-W-L Jamboard Activity ● *What do you wonder about the impacts of climate change locally, nationally, and globally?*	
Watch the video for *Rise* and listen to understand both perspectives ● *What stories did you hear Kathy telling?*	Kathy Aka

• *What stories did you hear Aka telling?*	
Read the poem, *Rise*, and highlight any examples of figurative and connotative language • *Why might the poets have decided to use this type of language?* • *What impact did this language have on the overall message in the poem?*	Figurative language Connotative language
Using Google Earth to understand the impact of the changing climate on locations named in the poem, *Rise*. Click on the link, then click on  The locations are synchronized with the order in which they appear in the poem. Explore the locations mapped in Google Earth and consider: • *What do you notice about these locations and their geographic features?* • *How might this activity help you get a better understanding of the message in the poem?*	
K-W-L Jamboard Activity • *What did you learn about the impacts of climate change locally, nationally, and globally?*	
(Asynchronous) For more information:	

Explore Google Earth's *Sea Level Rise and the Fate of Coastal Cities*. ● *What did you learn about the impact of climate change on locations around the world?* ● *How might this affect your perception of the climate crisis?*	
(Asynchronous) 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	

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:

- ES.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

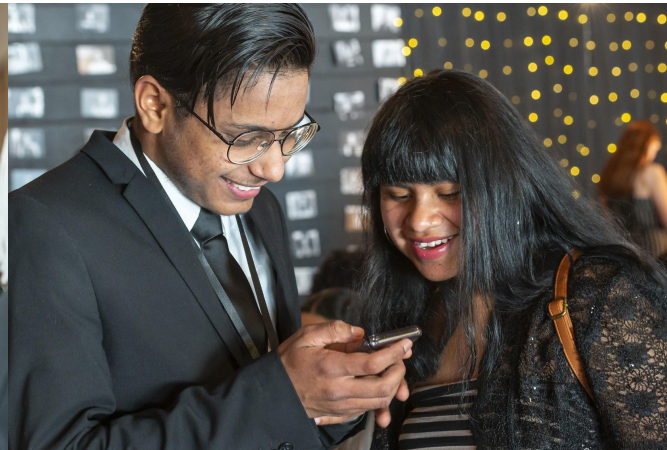
as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)

Working toward…

- 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

Community Engagement and Student Voice

September 2020



Introduction

In 2018, the PPS Board of Education and Superintendent launched a citywide conversation to tap into the wisdom of our students, our educators, and our community, to reimagine PPS for a rapidly changing world. **It was a powerful experience to unleash our collective imagination.**

This new vision--PPS reImagined--is inspiring and courageous. And while school district leaders, administrators, teachers and support staff are critical drivers of realizing our community's vision, **we cannot do it alone.**

For every student to realize the elements of the Graduate Portrait, we, as **one community**, must embrace our **collective responsibility**. That means aligning our efforts to clearly define and openly share our goals throughout our "village," engaging meaningfully with students, families, community leaders, youth advocates and mentors, and create partnerships with business and philanthropic leaders.

Tonight's Objectives

Tonight, we expect to:

1. Provide an introduction to the driving values, goals, and framework of PPS' community engagement and student voice infrastructure.

2. Draft shared goals and expectations for community engagement and student voice between PPS staff and board.

3. Formulate shared purpose statement for a reimagined Community Advisory Council structure.

PPS reImagined

Preparing Our Students to Lead Change and Improve the World

A graduate of Portland Public Schools will be a compassionate critical thinker, able to collaborate and solve problems, and be prepared to lead a more socially just world.

Core Values

Students at the Center
Racial Equity and Social Justice
Honesty and Integrity
Excellence
Respect
Relationships
Creativity and Innovation
Partnerships and Collaboration
Grounded in the Portland Spirit
Joyful Learning and Leadership

System Shifts

A Connected and Transformative School District

Racial Equity Aligned Systems and Structures

Schools as Community Hubs

Supports for Global Stewards and Ambassadors

A Culture of Physical and Emotional Safety

RESJ Goals

Community Engagement

Develop coherent frameworks that embolden more community participation in relevant and substantive ways, informing district policy and administrative decisions.

Elevate the importance of interdependence among PPS and the broader community, ensuring decisions embody our community's voice.

Create opportunities that build our families' capacity to be informed and actively engaged in their children's education and in school improvement efforts, especially students and families of color.

Student Leadership

Increase the activity participation of students of color in leadership opportunities (i.e. student government, clubs/affinity spaces, site council) across each PPS middle and high school campus.

Establish district-wide alignment and equitable representation in support of affinity groups based on race and ethnic representation (i.e. MECha, Black Student Unions, Native American Student Unions, etc.)

Facilitate intentional and intersectional group gatherings (i.e. student summits/conferences) that increase leadership and professional skills of all students, and in particular students of color.

Student Voice

Center student voice in the districts decision making processes so that they:

1. have ample opportunity to discuss how they experience school,
2. engage in facilitated discussions where they can express various viewpoints even if they are counter to dominant narratives,
3. have a system for providing feedback to district leadership regarding school issues, suggestions and desires and
4. have multiple means of expressing their perspectives regarding district or school issues.

Increase opportunities for students to identify and work on equity issues impacting their educational experiences with District leadership.

Actively involve students in district improvement efforts and meetings, developing the capacities to address the issues they identify alongside district leadership.

Community Engagement & Student Voice

The **Department of Community Engagement and Student Voice** serves as a central conduit for PPS decision makers to listen to, learn from and involve key stakeholders in PPS' decisions and policy shifts, in service of accelerating the conditions for student achievement.

Core Functions:

1. Building the District's capacity to engage authentically with our diverse community

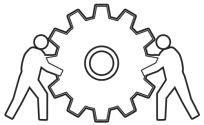
2. Center Community Voice and Experience in District Decision Making and Policy Change

3. Elevate systems shifts with the leadership and expertise of PPS students

Department Values

Racial Equity & Social Justice

We believe diverse communities have cognition and insight that help the district's engagement, and goal of eliminating the achievement and opportunity gap.



Deep Democracy

We believe in addressing and challenging power dynamics that prevent Black, Native and Communities of Color from fully participating in our decision-making processes. This includes increasing accessibility for language access and for people experiencing disabilities.

Youth Empowerment

We believe that student voice is an essential and meaningful ingredient in our decision-making and seek to amplify their lived experience in our district improvement efforts.

Team

Jonathan Garcia
Chief Engagement Officer

Shanice Brittany Clarke
Director, Community Engagement

Community Engagement Specialists

Maria Hernandez

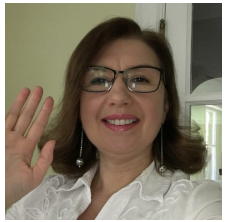
Yian Saechao
(Student Engagement)

Ezell Watson

Community Agents

Mirna Ghamrawi

Nelson Perez-Gonzalez



Olga Filinova

Trang Tran
(Early Fall)

Spectrum of Community Engagement

We provide balance and objective information to our community.

INFORM

CONSULT

We seek and obtain feedback from our community on analysis, issues, alternatives and decisions.

Work with our community to make sure that their concerns and aspirations are considered and understood.

INVOLVE

COLLABORATE & EMPOWER

Partner with the community in each aspect of the decision-making.

District-decision making as a result of autonomas advocacy from the community.

COMMUNITY POWERED ACTION

TENTATIVE Framework for Capacity Building and Engagement

Connections

Create engagement opportunities in relationship with students, and that honors the histories and strengths of Black, Indigenous, and communities of color.

Confidence

Create accessible, welcoming, and universal design for spaces that distribute power, and empower people of varying languages, abilities, and backgrounds.

Cognition

Honor community intelligence, and improve engagement strategies with the RESJ Lens.

Capabilities

Facilitate meaningful opportunities for deep democracy, and address educational system shifts in engagement activities.
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adapted from Mapps' dual-capacity framework & OHEA community engagement guidelines for racial justice

Our Shared & Collective Success

10 Minutes

Community Advisories

01	**Community Advisory Councils**	• **School Board and/or Superintendent sponsored advisory groups** • **Only Student/Parent/Community Member Participation.**
02	**Joint Committees or Task Forces**	• Set to accomplish a short-term task, PPS can establish work groups that can include community members as active participants.
03	**School-Based Leadership Groups**	• School Site Councils • Student-Leadership Groups

Community Advisory Councils

A Community Advisory Council (CAC) is a District-established collective of diverse PPS community members, especially students and parents/guardians, that provide direct advisement to the PPS Board of Education, serving as community ambassadors and conduits for the shared voices of our community.

Proposal:

- Shared Agreement - Staff and School Board to collectively establish CACs (with advisement from community members), including developing an operations manual detailing each organization's purpose, shared agreements and overall structure.

- PPS School Board appoints membership to CACs from their respective zones (7 member CACs). Superintendent appoints staff liaison to the CACs.

Discussion #2

Community Advisory Councils

10 Minutes

PRESERVING WOOD WINDOWS
NORTH PORTLAND
LOVES
OUR GRADS
WE ARE ROOSEVELT!
GO RIDERS!
ROOSEVELT
GRAD
2020
PPS

Date September 22, 2020

Topic: Community Engagement and Student Voice

Presenters: **Jonathan Garcia**, Chief Engagement Officer
Shanice Clarke, Director of Community Engagement

Objectives: Tonight, we expect to:

1. Provide an introduction to the driving values, goals, and framework of PPS' community engagement and student voice infrastructure.
2. Draft shared staff and board goals and expectations for community engagement and student voice.
3. Formulate shared purpose statement for a reimagined Community Advisory Council structure.

Time	Topic	Notes/Next Steps
3 Min	**Introduction and Context Setting** Jonathan Garcia Chief Engagement Officer	
15 Min	**Community Engagement and Student Voice** Shanice Clarke Director of Community Engagement	
10 Min	**Facilitated Discussion #1** Shanice Clarke Director of Community Engagement	
5 Min	**Community Advisory Councils** Scott Bailey Vice Chair, PPS Board of Education Jonathan Garcia Chief Engagement Officer Shanice Clarke Director of Community Engagement	
10 Min	**Facilitated Discussion #2** Jonathan Garcia Chief Engagement Officer	
2 Min	**Closing Reflections and Next Steps** Guadalupe Guerrero Superintendent	