REDFORDCENTER**STORIES** Chapter (Lesson) 5. Shared Lands & Tuning to the Trees:life and reciprocity, part 3

Lesson Five Intentions:

- Students consider scientific/hidden properties of trees, and what is happening to trees/forests/land.
- Students examine nature access, and differential impact of global social-environmental conditions.
- Students reflect on their own relationship to equity of access, and inclusivity/sense of belonging in outdoor spaces.
- Students explore networks of connection and wisdom-sharing, and conveyance of a message.

Lesson Five Overview:

This lesson takes students into **the heart and majesty of the land and trees, and into deeper considerations of nature access andthe protection of public lands.** With new tools and technologies, we are learning what indigienous peoples across the world have long said: there is an invisible global breathing, intricate and unseen networks of communication occurring beneath and across the Earth, and a generative, mutually-enhancing natural relationship between all human beings and the Earth. **What is our relationship to trees and land** (to ground, breath, oxygen, photosynthesis, access to nature), as individuals and communities?

What have people across history understood and learned from how they have **inhabited** or interacted with land, and how have they experienced and their own identities in relationship to land, forests and trees? As scientists newly discover the communication systems and communal nature of trees (sophisticated beyond human invention), what can we learn from trees

and the ways they form and support community? This lesson touches upon what is happening to the world's forests and national

parks, and upon the idea of "conservation" and who is a "conservationist." It invites students to consider what limits and expandsa sense of belonging to and within the natural world, the impact of that sense on health, and how we can cultivate greater health

Key Themes:

- → Reflection, observation and dialogue
- Human impact on the natural world
- → Nature access as human necessity and human right
- → Public land access/rights and the cultivation of community
- → What we can do to help protect/repair public lands and increase equity outdoors
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Duration: This lesson is designed for 30 mins., but can be done in 15-20, or expanded to 45-80 mins.

Lesson Components:

- Slides (in Google slides format; adaptable for educator needs/preferences)
- VIDEO: "Giants Rising"; "Intelligent Trees"; "This Land"; "Nature"; "Backyard Birds"
- WRITING/REFLECTION: trees, access to nature
- Resources and extension ideas (see end of lesson)

Materials:

- Educators: Lesson PDF, access to online media (for video viewing), slide deck (customizable)
- Students: pencil/pen and paper

Connections (see extensions/resources and standards below; full standards for this project here):

Justice, Environment; Film, Reading/Writing; History; STEM Mini-challenge (can be used as a way of assignment/assessment); Further Reading; Watching; Exercises

<u>An Initial Reflection</u> (starting with our own experience; **student writing) Slide 3**

Tell a story about a tree.

(Give students a few minutes to reflect and write; could also be a poem.)

It could be about a tree you see all the time, saw earlier in your life, or that has a particular meaning for you. This could be a tree you can see out of a particular window, or that stands in a place close to you, or along your route to home, school, or someplace else you might walk; or a tree that's no longer there.

It could be an old tree, or a fairly young tree; thick or thin in its branches; tall and towering, or just barely a few feet high. Have you sat next to it, or under it? Have you noticed it in different seasons? Have you seen it change? What do you think the tree's story is? What do you imagine it has witnessed?

What creatures do you think make a home in this tree? What's its role on the Earth? How common is it to see this or any trees in the area where you live? Does this very often cross your mind?

* When ready, you might have a number of students share something that came to mind for them, or share a portion of what they wrote. You might also explore questions like:

- Where you live, is it easy to spend time near the trees?
 - Is it something you notice or think about very often?
- What species of tree are "native" to your neighborhood, city, county, state?
 - What does "native" mean referring to a tree, plant, or animal?
 - How can you find out what species are native to your area, and why does it matter?
 - What is it, or would it be like, to live in a community with very few trees or plants?
 - Why might there be few trees or plants, growing in a community?



<u>Giants Rising and Nature</u> (Videos) **Slide 4**

Show the preview of the film <u>Giants Rising</u>, a documentary that explores the many secrets and wonders of trees, and specifically redwood trees, including their extraordinary power to withstand fires, combat global warming, live for thousands of years, and reconnect human beings to nature. Then show <u>Nature</u>, an RC Stories student film.

- What stood out to you watching these videos?
- How do the filmmakers blend visuals, voice, and text to create a feeling for the viewer?



What's Happening with Trees?

Slides 5 & 6 (Can also be done as a Kahoot <u>HERE</u> or as a small group activity in class) (*From Stephanie Kaza, *Conversations with Trees*, x-xii.)

Building on some of the points made in Giants Rising, what is happening to the trees of the world?

In the last few decades, ______have become more severe and drawn out, snapping even sturdy trees under water stress. (droughts)

Forest_____are burning hotter and more erratically, jumping canyons and lines faster than they can be contained. (fires)

Bark______infestations in the Sierra Nevada have claimed the lives of millions of ponderosa, lodgepole, Jeffrey, and sugar pines, turning mountains into ghostlands. (beetles)

Urban forests in such iconic tree cities as Portland, Oregon, are losing ground to rapid development, creating heat islands from reduced. (shade)

Today's levels of greenhouse gases are the highest in forest_____. (history)

As forest cover shrinks due to agriculture, timber cutting, and urban development, forest species are _____all over the world. (disappearing)

At the same time, scientists are newly coming to understand the______life of trees. (hidden)

The reports of tree communication via symbiotic fungi and complex root networks has given scientific support to something many people have long sense: Trees_____to each other! (talk)

Trees function as ______ more than as individuals. (communities)

Often identified as elders of the Earth, some trees live for thousands of years. One of the oldest trees on Earth, a spruce in Sweden, is more than_____years old. (9,500)

As logging threatened Northern California in the 1960s, the discovery of the world's tallest tree sped up the call for federal protection, and _____National Park was officially established on October 2, 1968. (*Bonus: how tall is the world's tallest tree?) (Redwood; (<u>379.7 feet</u>)

<u>Intelligent Trees</u> (video) Slide 7

"Trees talk, know family ties and care for their young?"... Suzanne Simard (The University of British Columbia, Canada) has been observing and investigating the communication between trees over decades. See just a hint of her findings in the preview of *Intelligent Trees*.

- Reflections on this video? What caught your attention?
- Have you thought of trees in this way-as intelligent, communicative, communal?
- Before recent technology enables some measurement of the electrical impulses of trees, how were trees understood across history–in indigenous traditions, creation stories, mythologies?
- Do we think of learning from the trees? If we did, what might they teach us about community?

Oakland Goes Outdoors

Slide 8

View the film Oakland Goes Outdoors (either the 4 minute version, or the 15 minute version).

- What's it like to watch this film?
- Does it resonate in some way with your own experience of the outdoors?
- How is this story being told? Would you tell it differently? How so or why?
- What moment in this film/story most stands out/stays with you? (text, image, voice, sound?)

Access to Nature

"I appreciate that during this time - a pandemic - that people are posting that 'nature is still open'. That includes an implicit invitation that certain areas are for everyone, but when you come from communities that

- How have you connected with nature in this time?
- For whom is it easy to access the outdoors; especially in a pandemic when it's not easy to travel?
- When you are outdoors, does it feel familiar/comfortable? What contributes to it feeling this way/ not?



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"Runner and advocate Faith E. Briggs used to run through the streets of Brooklyn every morning. Then she chose a new course: running 150 miles through three U.S. National Monuments that lay in the thick of the controversy around public lands. Accompanied by running companions who represent diverse perspectives in what it means to be a public land owner, she assesses what is at stake if previously protected lands are reduced and if the public is largely unaware. *This Land* is a story about land access told through a journey of inclusion and empowerment." Show *This Land*. (*See possible questions on the following page.)

Slide 10

- What feeling are you left with in watching this film?
- What most surprised you in the story told here, or the journey Faith Briggs takes?
- How does Faith Briggs say she experienced her connection to the Earth most of her life?
- What actions does she take to change/deepen her experience? Why?
- How does Faith Briggs take action around something she cares about?
- What would you say is the relationship between felt connection, care and "conservation"?
- How does the story Faith Briggs tells help to draw out the connections between human beings and nature, and between caring for the environment and caring for people?

(possible video)

Picking up on how she opens her film, Faith Briggs says: "I think for me, calling myself a 'conservationist' is definitely an **act of reclamation**. This is sort of a funny question, because I've never really looked up the textbook definition of the word! What it comes down to is that what I'm doing is also about protecting the environment—one way of many ways."

Slide 11

- How do you understand what it is to be a "conservationist"?
- Why might Faith Briggs say that for her, "calling myself a 'conservationist' is...an act of redemption"?

Now watch this short film, <u>Backyard Birds</u>, in which a student discusses a project he started to help native birds.

- Do you consider making nest boxes for birds conservation or adaptation? Or possibly both
- What are the differences between conservation and adaptation? Can adaptation be a kind of conservation? Why or why not?

(*Also see https://www.thislanddoc.com; "Five Ways to Make the Outdoors More Inclusive")

★Lesson Five Challenge Prep: Interview an Elder

Slide 12

Story crafting, and creating change, requires deeply listening to diverse perspectives and lived experiences. Choose an elder – a parent, grandparent, aunt/uncle, neighbor, or other – and invite them to speak with you, seeking to understand their experience and relationship with nature and natural spaces. Decide on a time and way for connecting (Face-time, Zoom, in-person, etc.), and identify how you will record the conversation (with the permission of the person you invite to speak with you). A few questions you might explore (and make your own):

- 1. What is your favorite place in nature?
- 2. What in nature/the outdoors do you enjoy?
- 3. Have you been able to access the outdoors easily in your life?
- 4. Have you noticed changes to the natural places you love in your lifetime?
- 5. How does time in nature make you feel and why is time spent in nature important?
- 6. What do you hope for me or other young people to experience in nature?

This interview could then be edited into a short film or film clip with pictures, used in the final film challenge, or turned into a written story, poem or journal reflection. You can also share them with The Stories Project anytime!

Additional Activity Option:

Sacred Strides: Bear Ears Prayer Runners: See Story/Video (or view on Vimeo: HERE)

"Everyone ran the final miles to Bears Ears National Monument together. It was a sunny, blue-sky day in March, and 45 pairs of feet shuffled down a road of soft red dirt, kicking up a dust cloud. One woman wore her jingle dress, a garment used in ceremonial dances, its rows of metal cones clinking as she moved. Some still wore running shoes, but many had switched to moccasins. No one spoke. At this point, many of them had been running relay-style for three days straight, from sunrise until the light ran out.

The group—composed of members of the Hopi, Navajo, Ute, and Ute Mountain Ute tribes; a few of the New Mexico pueblos; and a contingent from the Wintun and Maidu tribes in California—had come together to run nearly 800 miles from New Mexico, Arizona, or Colorado to Bears Ears from March 12 to 17, 2018. Four separate routes snaked like veins through patches of tribal land, atop mesas, through coniferous forests, past oil pump jacks, and alongside busy highways. The event...was logistically similar to a team relay...but to define it as such would be misguided. These weren't racers—they were prayer runners. And this group represented a largely untapped generation of voices and activists, many of whom are young, in the current fight over public lands."

(Source: Outside Online)

• How is the word "sacred" used in video?

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- One of the speakers says: "The best way to understand your landscape is one your feet."
 - For whom is this easy/accessible-to explore a landscape on foot?
 - For whom is it not?
 - For example, communities impacted by racial violence?
 Or differently-abled individuals and communities?

National Parks and Public Spaces

You might ask students: Do you know the story of National Parks in the United States? How did they get started? What purpose do they serve? What is the status of these parks now? Who can access them? How?

Suggested Standards: Language Arts and History/Social Studies

This lesson gives students multiple opportunities to engage with **language**, **images and text**, with particular focus on how point of view impacts the story one tells. Students also have a chance to reflect on their own experience and point of view in **conversation and writing**.

CCSS.ELA-LITERACY.CCRA.R.7

Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

CCSS.ELA-LITERACY.CCRA.SL.2

Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.CCRA.L.3

Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

CCSS.ELA-LITERACY.CCRA.W.6

Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

CCSS.ELA-LITERACY.CCRA.W.7

Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

CCSS.ELA-LITERACY.CCRA.SL.1

Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

CCSS.ELA-LITERACY.CCRA.SL.2

Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.CCRA.SL.4

Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

Suggested Standards: STEM (Science, Technology, Engineering, Math)

Throughout this lesson students are encouraged to understand the primacy of **observation**, and the need to attend closely to **patterns and relationships**, and to be able to envision **the impact of actions**.

- Patterns and relationships
- Precision and depth in observation
- Inference and probability
- Ratios and proportional relationships

Suggested Connections: NGSS/Environment

Students are encouraged to make connections between the health of natural systems and the health of human beings and human communities. In addition, phenomena and change may be observable at one scale and not another, or

may require a different way of inquiry and attention to detect and understand.

- Health of human lives and health of natural systems
- Flow of energy and matter at the scale of the entire planet
- Exchange of matter between natural systems and human societies affects long-term functioning of both
- Phenomena that can be observed at one scale may not be noticed/observable at another scale
- Systems interact with other systems
- Stability might be disturbed either by sudden events or gradual changes that accumulate over time

Suggested Connections: Social Justice

The integration of perspectives and voices in this lesson is intended to encourage greater appreciation for the depth of **one's own identity**, and **respectful curiosity about others' lived experience**.

Diversity. Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way.

Action. Students will recognize their own responsibility to stand up to... injustice.

Suggested Connections: Social Emotional Learning Competencies

Components of this lesson are meant to support students' sense of **confidence and agency**, as well as their social-awareness and sense for relationships; as well as how much relationships need tending, both with **respect** to our relationship with the natural world and each other.

- Self-awareness (confidence, self-efficacy)
- Social-awareness (perspective-taking, appreciating diversity, respect for others)
- Social skills (communication, relationship building)
- Responsible decision-making (evaluating, reflecting)

Suggested Connections: UN Sustainability Goals



(*Click the images to go to pages on the UN's website that detail the goals and intentions behind each.)