Introduction – Braiding Sweetgrass Teaching Guide
UO Common Reading 2021-2022

Land Acknowledgement
The University of Oregon is located on Kalapuya Ilihi, the traditional indigenous homeland of the Kalapuya people. Following treaties between 1851 and 1855, Kalapuya people were dispossessed of their indigenous homeland by the United States government and forcibly removed to the Coast Reservation in Western Oregon. Today, Kalapuya descendants are primarily citizens of the Confederated Tribes of Grand Ronde and the Confederated Tribes of Siletz Indians, and they continue to make important contributions to their communities, to the UO, to Oregon, and to the world.

In following the Indigenous protocol of acknowledging the original people of the land we occupy, we also extend our respect to the nine federally recognized Indigenous Nations of Oregon: the Burns Paiute Tribe, the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians, the Confederated Tribes of the Grand Ronde, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of Warm Springs, the Coquille Indian Tribe, the Cow Creek Band of Umpqua Tribe of Indians, and the Klamath Tribes. We express our respect to the many more tribes who have ancestral connections to this territory, as well as to all other displaced Indigenous peoples who call Oregon home. Hayu masi.

Finally, we also acknowledge and remember that Oregon is a state founded on anti-Blackness with legalized Black exclusion laws. We are reconciling with this history.

About the 2021-2022 Book
As a botanist, Robin Wall Kimmerer has been trained to ask questions of nature with the tools of science. As a citizen of the Citizen Potawatomi Nation, she embraces plants and animals as our oldest teachers. In *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*, Kimmerer brings these two lenses of knowledge together through her memoir of living in the natural world and practicing heart-centered science. Drawing on her life as an Indigenous scientist, a mother, and a woman, Kimmerer shows how other living beings offer us gifts and lessons, even if we’ve forgotten how to hear their voices. In a rich braid of reflections that range from the creation of Turtle Island to the forces that threaten its flourishing today, she circles toward a central argument: that the awakening of a wider ecological consciousness requires the acknowledgment and celebration of our reciprocal relationship with the rest of the living world. This reciprocal relationship also comes with responsibility, urging all of humanity to work toward gratitude and reciprocity for the gifts of Mother Earth.

Learn more about and engage with events and activities in association with *Braiding Sweetgrass* on the UO Common Reading programming website, [https://fyp.uoregon.edu/common-reading-2021-2022-braiding-sweetgrass](https://fyp.uoregon.edu/common-reading-2021-2022-braiding-sweetgrass).
About the Author

Dr. Robin Wall Kimmerer is a mother, scientist, decorated professor, and enrolled citizen of the Citizen Potawatomi Nation. She is the author of *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teaching of Plants*, which has earned Kimmerer wide acclaim. She tours widely and has been featured on NPR’s *On Being* with Krista Tippett and in 2015 addressed the general assembly of the United Nations on the topic of “Healing Our Relationship with Nature.” Kimmerer lives in Syracuse, New York, where she is a SUNY Distinguished Teaching Professor of Environmental Biology, and the founder and director of the Center for Native Peoples and the Environment, whose mission is to create programs which draw on the wisdom of both indigenous and scientific knowledge for our shared goals of sustainability.

About this Guide

*Braiding Sweetgrass* provides myriad, rich entry points for a range of classes and disciplines. Because of its essay structure, it also lends itself well to being read and taught in its entirety or through selected excerpts. Because of the book’s innate versatility as a text, this guide features a variety of learning activities focused on specific themes and chapters within *Braiding Sweetgrass*.

The guide is organized around five key themes in the book:

1. Ways of Knowing
2. Stories and Telling
3. Indigenous Histories, Origins, and Futures
4. Community, Citizenship, and Belonging
5. Gifting, Reciprocity, and Responsibility

It includes some introductory activities appropriate for any class or student group (e.g., FIGs, ARCs, student programming groups, advisors) and others that work best in specific disciplines. That said, the design team found the text to be so rich that assigning a single or a few disciplines to specific activities sometimes proved challenging and teachers are likely to find much to choose from if teaching the book no matter the class. *Braiding Sweetgrass* will certainly fit in with curriculums in English/Writing and Indigenous, Race, and Ethnic Studies, but it also provides strong openings for physical and social sciences such as Biology, Anthropology, and Geography, as well as other Humanities including Philosophy, and History. There are also activities that will support classes in the Colleges of Business, Design, Law, and Education. Some activities will work better in some classes than others and, naturally, not all activities will work in all classes. In short, *Braiding Sweetgrass* is such a rich text and we hope that this guide supports its wide adoption in classes throughout the university.

This guide functions more as a buffet of possibilities rather than a curriculum. Each section includes high level learning activities, including class discussions, activities, and homework assignments that faculty can adapt and hone to suit their specific class needs and pedagogical style.
In addition to the content created specifically for *Braiding Sweetgrass*, this guide includes excerpts from the teaching guide for Louise Erdrich’s novel *Roundhouse* (appendix A). That guide includes excellent material about Native American history and culture, including intersections with Oregon’s tribes, that faculty may find relevant when teaching *Braiding Sweetgrass* as well. Even though it is included as an “appendix,” the authors strongly encourage faculty to engage with it as a valuable resource for teaching this year’s book. The *Braiding Sweetgrass* guide also includes a sortable spreadsheet (appendix B) that faculty can use to filter by essay, topic, or other criteria to hone plans for teaching the text, and resources to support implementing the Love, Authenticity, Courage, and Empathy (L.A.C.E.) framework in work with students (appendix C).

While we have organized the guide around these themes, essays from the text appear in multiple themes and the ideas, issues, and questions surrounding the book interweave throughout the guide. As such, we recommend using the sortable spreadsheet to narrow by specific essays faculty are interested in to see if content in multiple sections aligns with your goals for teaching *Braiding Sweetgrass*.

**A Note About Language Choices**

When drafting this guide, the authors considered and discussed language choices, and engaged the feedback received from reviewers. For example, one reviewer suggested changing an activity titled “Genocidal Boarding Schools” to “Indian Schools.” The team opted to keep the original title, feeling that a more neutral term belied the human life and culture decimating intentions of that boarding school system. Similarly, the team debated but ultimately decided to use the term “Mother Earth” when referencing the more-than-human world. We made this decision because Kimmerer herself uses the term throughout *Braiding Sweetgrass* and thus our using it aligns with the terminology of the text. Furthermore, we felt that to use a term more acceptable to Eurocentric sensibilities (e.g., “nature,” etc.) would be an act of erasure to many Native American and other Indigenous ways of knowing the world, including within Kimmerer’s own Potawatomi culture. We realize that not everyone in the University of Oregon community will agree with these decisions and contend that the topic itself can be a source for rich debate and productive conversations in classrooms.

Each of the activities in this guide includes key terms, but the guide itself does not include a glossary. We did not define a term when it was fundamental to a field of study as we assumed faculty would either already know the term or do the research necessary to teach it properly. With some other terms we did link to existing definitions to support the pedagogical goals of the activity. For more complex terms that come from the text itself, we felt that it would be a disservice to Kimmerer’s rich work to try to pin down definitions for these terms. Instead, we encourage faculty and their students to look to the text itself for how to understand these terms, including multi-layered terms such as “reciprocity” or “guest.”

**About Teaching Complex Topics**

Teaching about the history, present, and future of native peoples in what is now known as the United States can bring up complex emotions and reactions from students, as it should. The Teaching Engagement Program has resources for how to engage these topics with students on their “acknowledging ongoing impacts of racialized violence” page, including *Strategies for Engaging with Difficult Topics, Strong Emotions, and Challenging Moments in the Classroom* and a *Teaching in
Turbulent Times Toolkit”. The L.A.C.E. resources included with this guide (appendix C) can also support students in bravely meeting the challenges of this material and processing complex emotional and embodied reactions.

Teaching Braiding Sweetgrass at University of Oregon

*Braiding Sweetgrass* has wide potential applicability as this year’s UO Common Reading, not only in UO classes but also in co-curricular programming and student advising. It aligns with the themes and goals of many, if not most, of our Academic Residential Communities (ARCs) and First Year Interest Groups (FIGs), as well as other student groups and co-curricular programs. Several of the activities in this guide will be appropriate in both classroom and co-curricular contexts.

Because the UO Common Reading program has traditionally focused on students in transition (e.g. first year and transfer students), the activities in this guide tend to be targeted more for first- and second-year courses and programs. As such, many of these activities fulfill one or more of the university’s core education Methods of Inquiry: Critical Thinking, Creative Thinking, Written Communication, and Ethical Reflection. They may also support courses fulfilling or trying to be accepted into the Cultural Literacy category of core education classes.

Teaching Guide Authors

**Keegan Livermore**

Keegan Livermore (he/they) is a graduate of the Master’s in Language Teaching Studies program within the Linguistics department. A descendant of the Yakama Nation, he works with the Ichishkiin language and is returning to his tribal community to teach at the tribe’s high school. Before coming to the UO, they studied Comparative Literature and Education at Stanford University and English Literature and Language at Heritage University.

**Nii Mahliaire**

Nii (they/them) is an Ojibwe graduate student from northern Minnesota. They are a third-year at the School of Journalism and Communication in the Media Studies department. Their current focus is health and advocacy communication, specifically best practices in relapse and recovery, how to message to families suffering from substance use disorder, and spreading awareness that addiction is not a choice-based disease.

Nii is a registered citizen of the Red Cliff Band of Lake Superior Chippewa (Ojibwe) and uses this lens in their research to critique and analyze current social norms, health related policies, and new media. Their previous research focused on hashtag mobilization, online social movements (such as #MeToo), and decolonization.

**Samantha Queeno**

Samantha Queeno (she/her/hers) is a PhD candidate in anthropology at the University of Oregon. She grew up in the rural Finger Lakes Region of Upstate New York, and received a BA in anthropology and a BS and MA in biological sciences from the University at Buffalo. Her dissertation research focuses on the evolution of human “uniqueness,” specifically the evolution of long-distance bipedal
walking and running and the role that natural selection played in shaping our unique muscle physiology. Samantha is passionate about science outreach, conservation and sustainability, and spends her free time in her garden or on the local trails identifying birds and blooms.

**Annalee Ring**
Annalee, a.k.a. Annie, (she/her/hers) is a fourth-year doctoral student in the Philosophy Department at UO, focusing her research on Native American (and Decolonial) Philosophy, Philosophy of Race, Environmental Philosophy, and Feminist Philosophy. She grew up in Flagstaff, AZ and received a BA in Philosophy, English, and Leadership from the University of Denver. She earned her MA in Philosophy at Gonzaga University, focusing on Diné philosophy of language and land as well as critiques of colonial language and colonial philosophy of nature. Her current research focuses on colonial language and mythologies in order to expose and critique their operations. She co-founded the UO MAP (Minorities and Philosophy) chapter, worked as a graduate employee with the Black Thought Matters Initiative, and co-founded the Philosophy in the Margins reading group.

**Teaching Guide Advisors**

**Sarah Stoeckl, PhD**
Sarah (she/her) is a program manager in the University of Oregon’s Office of Sustainability. She has over a decade of experience in program and project manager for non-profits, tech companies, and universities. At UO Sustainability she manages the office’s academic and community outreach and engagement programming. She has a longstanding commitment to environmental concerns and issues, particularly those focused on the intersection of environmentalism with social justice and animal ethics, as well as reversing climate change with a particular interest in the crises' affective consequences. Sarah did her PhD work at UO in English Literature. Her research focused on how narratives after the First World War manifested but failed to resolve trauma and grief, with an overarching curiosity about the cultural and affective consequences of rupture, change, and traumatic events.

**Taylor McHolm, PhD**
Taylor (he/him) is the Director of the Student Sustainability Center, a program of the Erb Memorial Union at the University of Oregon. In this role, Taylor develops student leaders, helps facilitate student sustainability projects, and develops programming to meet student needs on campus. He is also the co-chair of the Food Security Task Force, which develops and implements programs and strategies to combat food insecurity on campus. He received his PhD from the University of Oregon’s interdisciplinary Environmental Science, Studies, and Policy program, with a focal department of English. His published research addresses representations of environmental justice and the racial components of the Anthropocene. In all areas, his work and research prioritize the intersections of sustainability, environmental justice, social equity, and cultural production.

**Teaching Guide Faculty and Staff Reviewers**
- Yvette Alex-Assensoh, Vice-President for Equity and Inclusion; Professor, Political Science
- Laurel Bastian, Faculty Consultant, Teaching Engagement Program
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Indigenous Origins, Histories, Futures

Overview: *Braiding Sweetgrass* weaves stories and arguments that reveal values of traditional importance to Anishinaabe and other Indigenous cultures while simultaneously discussing current issues, particularly pertaining to sustainability and how to mitigate and survive an uncertain future. Kimmerer also engages with histories of settler colonialist oppression and violence, including the boarding schools system, as well as their present-day manifestations in cultural and ecological devastation. Last, Kimmerer builds from her engagements with the past and the present to urge readers to make different choices now in order to repair the future. This section of the guide examines Indigenous origins, histories, and futures through a variety of activities. These activities focus on genocidal boarding schools, the manifestations of historical colonization at UO and what this implies for the present, land restoration and how students can engage in and support moves toward repair and reciprocity, and the ongoing impacts of settler colonialism as represented in the Line 3 pipeline as well as other issues and projects impacting the Pacific Northwest. The activities in this section ask students to understand the past and recognize the present in order to shape the future.

Activities:
1. Genocidal Boarding Schools
2. UO Histories: Uncover History and Beings on Our Campus
3. Restoring Relationships with the Land
4. Settler Colonialism is Now
5. Fire, Cultural Repression, and Ceremonies for the Land

Chapters Used, Sections, and Related Activities:
“Burning Cascade Head,” *Braiding Sweetgrass* (Activity 5)
“In the Footsteps of Nanabozho: Becoming Indigenous to Place,” *Braiding Sweetgrass* (Activity 2)
“Learning the Grammar of Animacy,” *Planting Sweetgrass* (Activity 1)
“*Mishkos Kenomagwen*: The Teachings of Grass,” *Picking Sweetgrass* (Activity 3)
“Putting Down Roots,” *Braiding Sweetgrass* (Activity 1)
“*Shkitagen*: People of the Seventh Fire,” *Burning Sweetgrass* (Activity 3, 4)
“The Honorable Harvest,” *Picking Sweetgrass* (Activity 4)

1. Genocidal Boarding Schools

Overview: In this activity, students build and convey their knowledge about genocidal boarding schools used by settler colonial states to decimate the cultures and lives of Indigenous peoples, in the U.S. but also Canada, Australia, and others. Students will engage with their views on Indigeneity and read about current cultural healing. The intention is to show how Indigenous histories can be “erased” from day-to-day conversation and to introduce this material to students who have not previously engaged these histories.
Learning goals: Through active engagement with the class activities, students will be able to:

- Describe the impacts of the residential boarding school system on Indigenous families, communities, and the environment.

Key Terms: Residential boarding school, tribal reservation, genocide

Activity style: Class/group discussion, short written analysis

Readings: “Putting Down Roots” and “Learning the Grammar of Animacy”

Contextual Resources:

- NABS Process for Trauma-Informed Resources for Boarding School Survivors
- “A Federal Probe Into Indian Boarding School Gravesites Seeks to Bring Healing,” NPR
- Secretary Haaland’s statement on federal boarding schools from the State Department
- “Truth and Reconciliation Commission,” The Canadian Encyclopedia
- “Indigenous People in Canada Grapple with 'Unthinkable Loss,'” Al-Jazeera
- “Native Children Didn’t ‘lose’ their Lives at residential schools. Their lives were stolen,” The Guardian

The following activity involves whole class discussion, paired student discussion, and related work:

- As full class or student pairs, discuss: what do you know about the residential boarding school system?
- Individually, have students read the Al-Jazeera article about the recent boarding school discoveries in Canada and then discuss with their partner. Why do you think are these mass graves are just being discovered now? What could that reality say about our systems of history-keeping?
- As pairs, students use this interactive map to find a residential boarding school (past or present) here in the Pacific Northwest,
  - Where is it? What tribal reservations are near it? When was it in operation?
  - Whose territories is it on?
  - What is some of the history you can identify about it?
  - What is the source of your information? Evaluate the accuracy/reliability of your sources.
- Student pairs: Review pp. 254-55.
  - What kinds of impacts on Indigenous lives does Kimmerer describe here? Divide into three groups and assign a theme. Have them develop a 3-4 minute "presentation" to give to the class describing the impact to the class.
    - “On Family” pp. 263-64.
Present impacts (group micro-presentations in front of the class or in small trios [peer teaching] of groups). Think about and discuss the inter-connections between all of these kinds of impacts.

- Whole class discussion: What kinds of behavior are we engaging in today toward Indigenous communities that might be viewed as violent and inhumane? What can we do as individuals, as a community, and as a society to stop these practices?
  - Review (Healing) pp. 264-67. With a different partner:
    - What kinds of healing are being demonstrated here? What kinds do you feel aren't represented?
    - Did you expect this kind of healing to occur? What would be alternatives from other culture systems?

Suggested Criteria for Success:
- 1-2 minute summary of Kimmerer's writing
- 1 meaningful/important quote with page number with explanation of impact
- Description of impact and loss

Additional Resources

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2. UO Histories: Uncover History and Beings on Our Campus

Overview: Students will independently research historical markers on UO campus, plant life, and local Indigenous tribes. This activity is intended to examine social positionality and engage students in historical research.

Learning goals: Through active engagement with the class activities, students will be able to:
- Perform a cross analysis on personally gathered field data.
- Identify and locate tribes/clans/bands of Indigenous peoples in other areas of the United States.
- Gain a deeper understanding of the Indigenous lands UO campus resides on.
- Reflect upon the complex relationship Indigenous peoples have with Western/Eurocentric cultures.
- Identify indigenous, naturalized, immigrant, and invader plants and animals (i.e.: sweetgrass, cedar, sage, tobacco) and work towards a personal relationship with identified plants.
- Gain familiarity with reciprocal relationships and how they can be beneficial to plant/animal life.
Key Terms: Indigenous, naturalized, invader, immigrant, settler colonialism (see resources in Activity 5: Settler Colonialism is Now, if needed)

Activity style: Independent research, self-evaluation, reflection, “item hunter” style

Readings: “In the Footsteps of Nanabozho: Becoming Indigenous to Place”
Other resources: SEEK app from iNaturalist (available in device stores).

Activity 1: Hidden History on Campus

Students will individually (outside of class time) engage with the hidden history map of UO. Note that students can complete this activity on its own or in tandem with the SEEK app activity below. Instruct students to complete the following four steps:

1. Examine the hidden history map and pay close attention to Indigenous markers
2. Cross reference the map above with the current campus map and the 1897 campus map
   o For further information on how the UO campus was shaped over the years see the Landscape Resource Survey (2007)
3. As you view the historical places or markers on the digital maps, consider the following questions:
   - Do any of the historical markers on campus feel “off” or weird to you?
   - Why do you think these historical markers exist/existed on campus?
   - How might Indigenous students feel when interacting with or passing by these markers? Discuss the marker and its prevalence.
   - Read Remedying racist symbols on campus from the Register-Guard
4. Observe the Indigenous UO Map
   - Visit 2-3 locations of your choice from the map to observe.
   - Take notes on the chosen locations and discuss something new you learned from visiting the site. Notice: How does the physical space compare (physically, emotionally, visibly, etc.) to the representation on the map? Report your findings back to the class.
5. Visit the Native Lands website and identify which local nations are in Eugene, Oregon and your hometown. Fill out the chart below.

<table>
<thead>
<tr>
<th>Location</th>
<th>Local Indigenous Nations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eugene, Oregon</td>
<td></td>
</tr>
</tbody>
</table>

Your hometown:
6. Last, reflect on your research and either write up or video a short journal response or share your results and thinking with a classmate. Consider the following questions in your reflection:
   a. What sites did you visit and what did you learn?
   b. What did your research reveal to you about settler colonialism? Think in context of the university specifically and also more generally.
   c. Does the current system of marking history on campus, from what you can tell, reflect reciprocal relationships? Why or why not?

Activity 2: Native, Non-Native, and Naturalized Plants and Animals on Campus

1. Preparation: Read “In the Footsteps of Nanabozho: Becoming Indigenous to Place” and download the SEEK app to your phone (if this is not possible for each student, assign partners with at least one partner having access to SEEK). Note: students could do this activity on its own or in tandem with the Hidden History on Campus activity above.
2. Use the SEEK app to identify 3-5 plants or animals that you encounter on campus.
3. Using information available on the app and your own independent research, answer the following questions:
   i. Is it native to the Willamette Valley? If not, where does it originally come from? If it is not native to this area, who are the peoples who were Indigenous to the plant/animals original region?
   ii. Is it sacred or culturally important to any of the Indigenous peoples from its native region, including if that region is the Willamette Valley. (Note: There is a chance that you will find plants that are not native to North America or the United States, in which case there will still be Indigenous groups who call that region home.)
   iii. Can you find any information about why it might be living on the UO campus? (e.g., aesthetics, important to settler colonial or other cultural traditions, climate-induced migration, ease of maintenance, etc.)
   iv. If it is a native plant or animal, what does its presence suggest to you (i.e., about settler colonialism and its perspectives, about the university, about Indigenous cultures, about plants and animals, and others)?
   v. Last, reflect on your research and either write up or video a short journal response or share your results and thinking with a classmate. Consider the following questions in your reflection:
   c. Kimmerer uses the terms indigenous, naturalized, immigrant, and invader to describe those who inhabit a land. (See page 214/below for her definitions.) Using these terms, how would you label the plants/animals you found and researched?
      1. Indigenous: “is a birthright word” (213).
      2. Naturalized: “This is the same term we use for the foreign-born when they become citizens in our country” (214).
      3. Immigrant: “newly inhabiting a space that is currently occupied but pays respect to the wisdom of those who came before” (214).
4. Invader: “unwelcome newcomers that take over other’s homes and grow without regard to limits” (214).

c. What did your research reveal to you about settler colonialism? Think in context of the university specifically and also more generally.

c. Does the current ecological system manifested on campus, from what you can tell, reflect reciprocal relationships? Why or why not?

3. Restoring Relationship to Mother Earth

Overview: This activity engages students through close reading and critical thinking. Students are asked to discuss their individual, their community’s, and their business’ impact on Mother Earth and what they could feasibly do to help current issues affecting Mother Earth.

Learning goals: Through active engagement with the class activities, students will be able to:

- Identify current events affecting Mother Earth, a.k.a. what Kimmerer calls “the good, green world,” in this chapter and compare/contrast the events from the reading.
- Examine and analyze students’ personal openness to sustainable action.
- Brainstorm how students can help Mother Earth through reciprocal relationships.
- Create a comprehensive list of sustainable actions.
- Analyze their findings and condense researched information.

Key Terms: Mother Earth, Reciprocal relationship, Land back, decolonization

Activity style: Close reading, written analysis

Readings: “Shkitagen: People of the Seventh Fire”

Additional readings:


1. Read “Shkitagen: People of the Seventh Fire,” specifically this excerpt from the chapter (p. 369-72):

I remember a night when my five-year-old woke afraid of the thunder. It was only as I held her and came fully awake that I thought to ask why there was thunder in January. Instead of stars, the light outside her window was wobbly orange and the air vibrated with the pulsing of fire.

I dashed to get the baby from her crib and led us all outside wrapped in blankets. It was not the house on fire, but the sky. Waves of heat came billowing across the winter-bare fields, like a desert wind. The darkness was burned away in a massive blaze that filled the horizon. My
thoughts raced: a plane crash? nuclear blast? I bundled the girls into the pickup and ran back in for the keys. Thinking only to get them away, to go to the river, to run. I spoke as calmly as I could, in measured tones as if fleeing an inferno in our pajamas was no cause for panic. “Mama? Are you afraid?” asked the small voice at my elbow as I tore down the road. “No, honey. Everything is going to be okay.” She was nobody’s fool. “Then Mama? Why are you talking so quietly?”

We drove safely to our friends’ house ten miles away, knocking on their door for refuge in the middle of the night. The flare was dimmer from their back porch, but still flickering eerily. We put the children to bed with cocoa, poured ourselves a whiskey, and flipped on the news. A natural-gas pipeline had exploded less than a mile from our farm. Evacuations were underway and crews were on the scene.

A few days later, when it was safe, we drove to the site. The hay fields were a crater. Two horse barns were incinerated. The road had melted away and in its absence there was a track of sharp cinders.

I was a climate refugee for just one night, but it was enough. The waves of heat we are feeling now as a result of climate change aren’t yet as crushing as the ones that rocked us that night, but they too are out of season. I never thought that night of what I might save from a burning house, but that is the question we all face in a time of climate change. What do you love too much to lose? Who and what will you carry to safety?

I wouldn’t lie to my daughter now. I am afraid. As afraid today as I was then, for my children and for the good green world. We cannot comfort ourselves by saying it’s going to be okay. We need what’s in those bundles. We can’t escape by going to the neighbors’, and we can’t afford to talk quietly.

My family could go home again the next day. But what about the Alaskan towns being swallowed alive by the rising Bering Sea? The Bangladeshi farmer whose fields are flooded? Oil burning in the Gulf? Everywhere you look, you see it coming. Coral reefs lost to warming oceans. Forest fires in Amazonia. The frozen Russian taiga an inferno vaporizing carbon stored there for ten thousand years. These are the fires of the scorched path. Let this not be the seventh fire. I pray we have not already passed the fork in the road.

What does it mean to be the people of the seventh fire, to walk back along the ancestral road and pick up what was left behind? How do we recognize what we should reclaim and what is dangerous refuse? What is truly medicine for the living earth and what is a drug of deception? None of us can recognize every piece, let alone carry it all. We need each other, to take a song, a word, a story, a tool, a ceremony and put it in our bundles. Not for ourselves, but for the ones yet to be born, for all our relations. Collectively, we assemble from the wisdom of the past a vision for the future, a worldview shaped by mutual flourishing.

Our spiritual leaders interpret this prophecy as the choice between the deadly road of materialism that threatens the land and the people, and the soft path of wisdom, respect, and reciprocity that is held in the teachings of the first fire. It is said that if the people choose the green path, then all races will go forward together to light the eighth and final fire of peace and brotherhood, forging the great nation that was foretold long ago.
Supposing we are able to turn from destruction and choose the green path? What will it take to light the eighth fire? I don’t know, but our people have a long acquaintance with fire. Perhaps there are lessons in the building of a handmade fire that will help us now, teachings gleaned from the seventh fire. Fires do not make themselves. The earth provides the materials and the laws of thermodynamics. Humans must provide the work and the knowledge and the wisdom to use the power of fire for good. The spark itself is a mystery, but we know that before that fire can be lit, we have to gather the tinder, the thoughts, and the practices that will nurture the flame.

As the seventh fire people walk the path, we should also be looking for shkitagen, the ones who hold the spark that cannot be extinguished. We find the firekeepers all along the path and greet them with gratitude and humility that against all odds, they have carried the ember forward, waiting to be breathed into life. In seeking the shkitagen of the forest and the shkitagen of the spirit, we ask for open eyes and open minds, hearts open enough to embrace our more-than-human kin, a willingness to engage intelligences not our own. We’ll need trust in the generosity of the good green earth to provide this gift and trust in human people to reciprocate.

I don’t know how the eighth fire will be lit. But I do know we can gather the tinder that will nurture the flame, that we can be shkitagen to carry the fire, as it was carried to us. Is this not a holy thing, the kindling of this fire? So much depends on the spark.

2. Take a moment to reflect on the above reading.
   - What impacts you the most in this passage? Why?
   - What crises of Mother Earth are mentioned?
   - What do you think the “eighth fire” means within this context?
   - What are the meanings of “tinder” and “firekeeper”?

3. **Note for the Instructor**: Introduce students to the ideas of the [Landback movement](https://landback.org/) and thinking beyond individual actions as the solution to all problems or the only place where students can have positive impact. Because this activity focuses primarily on impacts traditionally considered “environmental,” you may want to introduce them to the ideas of policy solutions, collective action, and specific solutions-focused groups such as [All We Can Save](https://www.allwecansave.org/) and [Project Drawdown](https://www.projectdrawdown.org/).
   - Landback is about dismantling systems of white supremacy, defunding mechanisms and systems that enforce power, move into an era of free and prior informed consent, and the return of all public lands back to Indigenous peoples. For a full list on the movements objectives read the [Landback Manifesto](https://landback.org/manifesto).
   - Movement members explain that Landback is not just a statement but rather a demand that cannot be co-opted by higher education or the government as has, arguably, happened with “decolonization” and “Indigenization.” The demands made by movement members are not up for debate or recommendations on policy or other changes.
     - “Landback means access to sustainable food from the land, and it means affordable housing in urban settings. It means a return to our languages and incorporating harm-reduction strategies into ceremony. It means a return to matriarchy in a way that my generation has never known. Landback, to me, is this beautiful fusion of the core foundations of our ancestors, with room for
growth and expansion in envisioning Indigenous futurisms. In 10 or 20 years, I hope Indigenous people are speaking our languages, practicing food sovereignty, and exercising full jurisdiction over land and water both in rural and urban spaces” (Longman, 2020).

4. Find 5 current events affecting Mother Earth, at least one from the Pacific Northwest.

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
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<td>4.</td>
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<td>5.</td>
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- What do these events have in common with the reading?
- What is the most eye-opening article you read based on your research? Why?

5. Brainstorm 5-10 sustainable actions you can do to reduce your negative impact or have a positive impact on Mother Earth. Write the action and the likelihood you will take on the action. Brainstorm long-term changes. Think large impact, including beyond actions that are entirely within your sphere of control or “individual.”

<table>
<thead>
<tr>
<th>Action</th>
<th>How is this action reciprocal with Mother Earth?</th>
<th>Likelihood (highly likely, moderately likely, not likely at all)</th>
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6. Brainstorm 5 actions a business can do to help Mother Earth. For this chart choose 1-5 businesses (e.g., McDonalds, Walmart, Target, Starbucks, etc) and write an action they can do to limit their negative impact on Mother Earth or have a positive impact on Mother Earth (make sure it is not currently being done by this business).

<table>
<thead>
<tr>
<th>Business</th>
<th>How is this action reciprocal with Mother Earth?</th>
<th>Action</th>
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7. Brainstorm or research one law that can be pushed through via policy and enacted through the
government to stop a negative impact on Mother Earth or have a positive impact on Mother
Earth. (Can be in the form of tax-credits, state-wide rules & regulations, funding for
sustainability in xyz, etc.) Be sure to consider how this law would be reciprocal to Mother Earth.

Criteria for Success: Reflexive Writing Assignment (short)

• Sentences 1-3: What did you take away from the chapter/excerpt? What current events stood
  out to you?
• Sentences 4-6: Summarize your suggestions for sustainable actions and provide your reasoning.

4. Settler Colonialism is Now

Overview: This assignment is designed to walk students through what modern settler colonialism looks
like by using the “Stop Line 3” movement and/or other PNW examples as case studies to examine how
fossil fuel pipelines and other destruction projects or mindsets contribute to modern forms of
Indigenous genocide, marginalization, and erasure. It provides a very brief history/definition of settler
colonialism, sets up some of the issues surrounding Line 3 and other projects, and asks students to
examine how pipelines affect Indigenous peoples and non-natives seven generations in the past and
future. The purpose of this assignment is to have students examine Western/Eurocentric thought
processes and critically think on policies, practices, and mindsets that perpetuate settler colonialism in
their present lives as well as beyond their lifespans.

Learning goals: Through active engagement with the class activities, students will be able to:

• Critically and ethically reflect upon how pipelines (or other problematic energy or similar
  projects) are forms of ongoing genocide against Indigenous peoples and cultures.
• Recognize modern forms of settler colonialism and their impacts on Indigenous people and
  communities.
• Examine and analyze a current political/environmental protest that has long-term effects on the
  waterways in the Midwest and the Indigenous peoples native to that land.
• Brainstorm how a project or other issue will affect future generations and envision people and
  society might do without enough clean drinking water.
• Analyze “man-camps” and how they contribute to the crisis of missing and murdered Indigenous
  women (MMIW).
Key Terms: Settler colonialism, seven generations, microaggression, missing and murdered Indigenous women (MMIW), man camp

Activity style: Independent Research, Close Reading, Case Study

Readings: “The Sacred and The Superfund” and/or “Shkitagen: People of the Seventh Fire” and/or “The Honorable Harvest”

Additional Resources and Preparation for Instructors and/or Students:

- **Settler Colonialism**
  - People from foreign lands (settlers) displaced/removed peoples from their homes (Indigenous populations) for goods, resources, lands, waters, and power. Today, settler colonialism exposes itself through mainstream habits, policies, and infrastructure: “The underlying systems of beliefs, practices, and institutional systems that undergird and link the racialization and management of Native Americans, Blacks, Mexicans, other Latinos, and Chinese, and Asian Americans...intend to acquire and occupy land on which to settle permanently, instead of merely to exploit resources. To realize this goal, the indigenous people who occupy the land have to be eliminated. Thus, one logic of settler colonial policy has been the ultimate erasure of Native Americans. This goal was pursued through various forms of genocide, ranging from military violence to biological and cultural assimilation” (Glenn, 2015, 69).
  - Modern forms of settler colonialism include but are not limited to: infrastructure such as dams that limit salmon spawning/travel, revoking the sovereign status of established Native Nations (removal of reservation status such as the Mashpee Wampanoag tribe during the COVID-19 pandemic), the lack of information for Missing and Murdered Indigenous Women, the dissemination of misinformation on boarding schools, removal, and cultural genocide, as well as, healthcare practices and continued treaty violation. Other examples include the cultural appropriation of trade names, sports teams, tattoos, dreamcatchers, and other closed practices such as smudging.

- **Seven Generation** is a philosophy that describes relationships between Indigenous peoples, non-Indigenous peoples, animals, lands, and waters. In practice, it means when you make a decision, you think about how it will affect seven generations into the future and in the past. This long-range thought process counteracts the modern short-term climate of policy and politics (political and business cycles).

- **Man-Camp** contribute to Missing and Murdered Indigenous Women (MMIW). Indigenous women and girls go missing at a rate 10 times higher than the national average. 4 out of 5 Native women are affected by violence today.
  - “Native communities have reported increased rates of human trafficking, sex trafficking, and missing and murdered Indigenous women in their communities. Workers who come
to a region for well-paid oil and gas jobs often set up ‘man camps.’ Placed in largely rural areas these camps strain infrastructures in communities that already have inadequate resources to support population booms. In 2015, violent crime reports increased in the Bakken oil-producing region of Montana and North Dakota, due to the socio-economic changes brought to the area with the oil boom. According to one report, sexual assaults on women on the Fort Berthold reservation increased by 75%. Conversely, there was no corresponding rise in violent crimes in the counties outside of the Bakken oil region. In fact, the overall crime rate decreased during this time. Overall, the potential for harm from “man camps” is exacerbated when they are on or near Indigenous peoples’ lands...Further, most workers located at “man camps” are non-Native. Due to federal laws, this leaves tribal members vulnerable to major crimes that cannot be prosecuted by their own tribe, including sexual assault and trafficking. Tribes’ lack of resources contributes greatly to the crisis. Pipelines are typically routed through rural areas in which local law enforcement (often already stretched thin) is tasked with jurisdiction over hundreds of miles of territory. With an influx in populations of regional outsiders, law enforcement can be overwhelmed and overworked for months (Stern, 2021, Review).

- **Wild rice beds are draining** due to the installation of pipeline 3
  - Wild rice, also known as manoomin, is a staple food and cultural resource for communities in the Great Lakes region.
  - “For thousands of Anishinaabe people (aka Anishinaabeg/Ojibwe), ricing is both a source of sustenance and a spiritual event that takes place every year. It begins with a ceremony that includes singing and other forms of paying respect to their rice relatives. It always includes knocking some grains into the water for animals and other beings, and to ensure there is seed for the following year’s rice” (Mizner, 2021, News Article).
  - Wild rice is a sensitive aquatic plant that provides ecological sustainability and biodiversity for lakes and wetlands. It is used for food and as a nesting habitat for waterfowl and mammals such as muskrats and beavers. Wild rice also contributes to water quality through its ability to bind loose soils, tie up nutrients, and act as a buffer by slowing winds across shallow wetlands. By stabilizing water quality, algal blooms are reduced, and water clarity is increased.
    - Here is a breakdown from a Western perspective on Line 3 and wild rice beds.
    - Here is a short history of wild ricing and its importance (interviews with Indigenous peoples and non-native’s).

- **Line 3 and Other, PNW Case Studies**
  - Stop Line 3 website
  - Jordan Cove Pipeline, opposed by Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, among other groups.
  - Gravel Mine proposed on Oakridge Butte, important site for local tribes.
  - Klamath Tribes fight to protect home and heritage in the midst of drought and ongoing settler colonialism.

**Activity 1: Settler Colonialism is Now Questions for Discussion**
• Tribal protector movements:
  o What is the purpose of this movement?
  o How does the project or issue affect people who currently live in the area?
  o Consider and then compare-and-contrast how this issue affects the Indigenous and non-indigenous populations differently.
  o How will or how is the project/issue affecting Mother Earth? What impacts will it have to things such as: animals, plants, waterways and watersheds, landscapes, air/atmosphere, etc.?
  o What was the most surprising information you learned?
  o What company or group oversees, has jurisdiction over, or has an interest in furthering this project or issue? this pipeline? Who is funding the work?
  o What do you notice/have you learned about government interaction with the project, including legislation, oversight, management, and policing or other law enforcement? Does anything in this interaction seem problematic? Complicated? How does it intersect with settler colonialism as a structure (not an event)?

• Line 3 specific questions. Teach students or have them do homework using the resources listed above and/or doing their own research.
  o How many major waterways/rivers will pipeline 3 go through?
  o How do man-camps contribute to an unsafe environment in rural communities, particularly on reservations?
  o What is MMIW? If you are just learning about this issue for the first time, how does it make your feel? What does it make you think?
  o Line 3 stands to have a devastating effect on wild rice beds that are sacred to the area’s Indigenous people and a crucial part of their culture. What is at stake if all the wild rice beds dry up?
  o What will happen to wild rice when there is an oil spill?
  o Did you notice any differences in the way Indigenous peoples and non-natives refer to wild rice?
    ▪ List one microaggression from Gracie Stockton’s or Heide Brandes article on wild rice
      • A microaggression is a statement, action, or incident regarded as an instance of indirect, subtle, or unintentional discrimination against members of a marginalized group such as a racial or ethnic minority.
  o Explain one major reason why wild rice is imperative to the Indigenous population from the Great Lakes Region.
  o After participating in this assignment, re-answer the question provided above: compare and contrast how this affects the Indigenous and non-Native populations directly.

• *Braiding Sweetgrass* questions
  o “The Sacred and the Superfund”
    ▪ Why does Kimmerer begin with telling the tale of the Peacemaker before describing the Superfund sites?
    ▪ How did this essay make you feel? What hurt you? What inspired you?
    ▪ Describe how Kimmerer writes about water. What does water mean to her?
Why does Kimmerer emphasize that “Human beings made this happen, not a faceless corporation” (325)? What do you make of this argument and what does it bring up for you?

What is a waste bed? How did it get there (326)?

What happened with Line #4? Who were the people involved? According to Kimmerer, who was there to protect the water (331)?

In the context of line 3, or whichever case study you looked at, what does this essay tell you about the ongoing impacts of settler colonialism and how to respond to it?

“Shkitagen: People of the Seventh Fire”

What is happening with the different ways of understanding and interacting with fire in this chapter? What metaphor and what lessons can we draw from fire here?

How is “reciprocity” practiced or described in this chapter (363)? How does Mother Earth “gift” people in the chapter?

How is wild rice described on pages 365-366? Summarize the bottom of page 366.

How does the prophecy and experience of the Anishinaabe people with white settlers intersect with our current moment, as we all face climate collapse? Why is Kimmerer drawing this comparison?

How does Kimmerer explain “revitalization”?

“The Honorable Harvest”

Read honorable harvest guidelines (183). Did you come across anything unexpected? Did you grow up with a similar set of expectations?

In your own words, how would you describe the Honorable Harvest that Kimmerer discusses? What feels resonant about it? What examples do you have of it not being practiced, either in your own life or in the broader culture? Can you point to an example of where it is being practiced, or could be?

On page 181, how is the act of wild ricing described? What is the cultural difference between the observer and the observed?

On pages 180-82, Kimmerer describes the practice of the Ojibwe people to harvest and cultivate wild rice, and how outsiders misunderstood their practices and the purposes behind them. Wild rice in this same region is currently threatened by the Line 3 pipeline project, and other places and beings important to Indigenous peoples and a functioning ecosystem, are also under continued threat from specific projects and mindsets as well as the overarching threat of global warming. Do you think the economic arguments in favor of these projects and actions have any merit? What would it take to shift perspective and action in most of the U.S. to embrace the practices of the Honorable Harvest? What impacts would such a shift have on Indigenous peoples? What impacts would such shifts have on the other beings who exist on Mother Earth?
Activity 2: Seven Generations

How might one of these issues/project affect people three generations in the past and in the future? This practice is meant to inform you about how you make decisions based on generations aside from your own. It does not necessarily mean you wish or desire to have children, but other people’s children will exist outside of your realm of being. Based on future possibilities surrounding these issues, such as no clean drinking water, food resources diminishing, loss of cultural heritage and tribal sovereignty, increasing global warming, and missing and murdered Indigenous women and girls, how might this affect past and future generations.

First, write and/or discuss the following questions:

- What would a future without clean water look like?
- Imagine that we cannot fix the unfixable and we have limited water to provide and disburse to the population. Who might be prioritized in the disbursement of clean water? Why or why not?

With these ideas in mind, fill out the table below, considering how generations were or might be affected both in the past and the future.

<table>
<thead>
<tr>
<th>Generation</th>
<th>Environmental/Cultural/Human Impact</th>
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<tbody>
<tr>
<td>Your great grandparents/aunts/uncles</td>
<td></td>
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<tr>
<td>Your grandparents/ great aunts/uncles</td>
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<td>Your parents / aunts/uncles</td>
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<tr>
<td>Yourself / siblings / cousins</td>
<td></td>
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<tr>
<td>Future children / niblings*</td>
<td></td>
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<tr>
<td>Future grandchildren / great niblings</td>
<td></td>
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<tr>
<td>Future great grandchildren / great-great niblings</td>
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* “Niblings” is a gender-neutral and group encompassing term for the offspring of one’s siblings.

After reviewing and sharing the table above:

- What stands out to you?
- How do you feel? What do you think? Where do you feel it in your body?
- Do you think the potential benefits of the project or issue justify the damage? Why or why not?
- What could be done to change this outcome?

5. Fire, Cultural Repression, and Ceremonies for the Land

Overview: This learning activity introduces cultural fire practices of the Nechesne along the Oregon Coast and the Karuk in the Klamath River Valley alongside ongoing colonial fire suppression and criminalization (with PNW examples). Kimmerer discusses cultural fire practices of the Nechesne in the
chapter “Burning Cascade Head” and their many benefits to the land, animals, plants, and people. Fire suppression and criminalization contributes to contemporary forms of forced assimilation, food insecurity, colonially imposed health concerns, food deserts, as well as Indigenous genocide, marginalization, and erasure. This activity provides a very brief history/context of settler colonialism, in part through reading Ron Reed and Kari Norgaard’s work alongside Kimmerer’s. The purpose of this assignment is to have students reflect upon the ongoing practices of settler colonialism in the form of fire suppression and criminalization and the widespread consequences of fire suppression and criminalization for Indigenous peoples as well as the land, plants, and animals of the PNW.

Learning goals: Through active engagement with the class activities, students will be able to:

- Critically and ethically reflect upon how fire suppression and criminalization is a form of ongoing settler colonialism, genocide against Indigenous peoples and cultures, and harm to the land, plants, and animals of the PNW.
- Reflect upon their associations with fire and where these associations might have arisen from (including the Smokey the Bear campaign that contributed to fire suppression and interruption of cultural fire practices)
- Examine and analyze the long-term effects of fire suppression and the criminalization of Indigenous social and ecological management.
- Become more familiar with Kalapuya stories of the land and reflect upon the importance of knowing the history, present, and future of the Indigenous peoples on whose land one lives and attends university.
- Research and write about a ceremony for the land as well as its impact on people, plants, animals.

Key Terms: Settler colonialism, cultural fire, fire suppression, fire criminalization, cultural appropriation, food sovereignty, forced assimilation

Activity style: Independent Research Project, Individual Reflection, Close Reading, Group Discussion, Class Discussion

Readings: “Burning Cascade Head”

Additional readings:

Additional Resources and Preparation for Instructors and/or Students:
Activity 1: Reflections on Fire before reading “Burning Cascade Head” (in-class or online)

- These activities will work best if the Kalapuya Land Acknowledgement has been discussed prior to these activities. See the introduction to this guide, visit the Native American and Indigenous Studies at UO website for the Territorial Acknowledgement and other resources, and/or visit the Diversity and Inclusion at the UO library’s page on Honoring Native Peoples and Land for additional resources.
- Before reading the assigned chapter “Burning Cascade Head,” have students individually create a list of all the associations they have with fire. Students may free-write their associations for about five minutes.
- Then, have students share their lists with a partner, comparing and contrasting their associations with fire. Would they say that their associations with fire are positive or negative? Why? What influences their relationship with fire? What are their cultural relationships with fire like? Allot ten minutes for this conversation.
- Have students share their findings from their conversation with the whole class. What were their associations with fire? Were they different than the associations their peers have? What influences their associations? Allot 15 minutes for this conversation.

Activity 2 (after reading “Burning Cascade Head”): Fighting Fire with Fire

- Have students read “Burning Cascade Head” for homework along with pages 1-13 of Salmon and Acorns Feed Our People. (If appropriate for the class—namely if settler colonialism and its ongoing practices have been discussed and the language for discussion has been taught—pages 88-113 would also work well for this lesson, but they require background knowledge and context).
- Break the students into small groups to answer the following questions:
  - Kimmerer describes fire ceremonies that tribes along the Oregon Coast practiced at Cascade Head (use this interactive map to explore the territories of many tribal nations that lived in what is now called Oregon, the Nechesne, Tillamook, Yaquina, Kalapuya, Confederated Tribes of the Siletz Indians, and the Confederated Tribes of the Grande Rondo, lived close to Cascade Head). These fire ceremonies were used as a beacon to bring Salmon kin home. These ceremonies “magnify life” and encourage biodiversity (Kimmerer 248). As a group, list all of the reciprocal benefits that the fire ceremonies and four days of celebrations contributed to the land, plants, animals, and people (see Kimmerer 241-248).
  - How does this list compare to the associations you had with fire before reading this chapter? Compare and contrast how fire is described in dominant media with how Kimmerer describes fire here. Create a list of the differences.
What measures did the settlers take to change the land after they occupied the area (Kimmerer 245-246)? What were the results? Why did ecologists later work to undo the changes to the land that settlers made (Kimmerer 251-253)?

After discussing the above questions on *Braiding Sweetgrass* in groups, incorporate the reading from *Salmon and Acorns Feed Our People*. The Karuk tribe lives in the Northern California part of the Klamath River Valley (which spans Southern Oregon and Northern California), not at Cascade Head as the Nechesne did. Their use of fire was also reciprocally beneficial for the Karuk people, salmon, plants, and other animals. Ceremonial fire and fishing practices were suppressed and criminalized through settler colonial practices. Have students consider and discuss the following questions in small groups:

- What role did fire play in “Karuk social management” as described by Ron Reed and in Karuk ecological management as described by Norgaard (2-3 and 9-11)? What were some of the benefits of using fire practices (also see pg. 13)? (Helpful background information can be found here in the article coauthored by Ron Reed and Kari Norgaard.)

- How did the invasion of Karuk territory by Non-Native settlers impact the social and ecological management described above? (Norgaard, 11-13) How did fire suppression and the absence of traditional food contribute to settler colonial practices (Norgaard, 11-13)?
  - A general history on the importance of food sovereignty would include Kyle Whyte and/or Sean Sherman, “*Why Aren’t There More Native American Restaurants?*”

- How did learning about these fire practices impact your perspective on fire? Did it change some of the associations you listed with fire before reading “Burning Cascade Head?”

- These social and ecological management practices described by Reed and Norgaard were interrupted by colonial occupation of Oregon and California. The suppression and criminalization of cultural fire practices has led to the vulnerability of forests to large-scale fires that are destructive. Read the following article as a group in class: “*Fighting fire with fire: Native American burning practices spark interest in a year of historic wildfires.***

- How does the article suggest fighting fire with fire? What might this reveal about the fires that Oregon has experienced the last few years (including the Bootleg and McKenzie Complex Fires of this year and the Holiday Farm Fire and others of 2020)?

**Activity 3 (after reading “Burning Cascade Head”): Stories of the Land**

- Kimmerer describes hiking on Cascade Head while knowing the story of the land. How does she describe the differences of the hike while knowing the story of the land from hiking without knowing the story? (247-248) Individually, brainstorm additional ways that knowing the stories of the land you are on might change your experience of being there, then reflect on the following questions:
  - Do you know the stories of the land that you are on during this class (Kalapuya land)? And/or at your home? How might knowing these stories change your experience of class or your experience living in your home?

- Bring the students back to the whole class to listen to Esther Stutzman’s telling of a *Kalapuya creation story* here or read together/assign as reading here. Be sure to introduce the idea that
this story (an ancient truth) belongs to this family, that there is an ethics to telling stories that students should be mindful of (for a brief background on this through an interview with storyteller Esther Stutzman see this article), and that as Kimmerer reminds us, we should not culturally appropriate Indigenous traditions.

- What does this story suggest to you about how the Kalapuya view the interaction between humans and other beings who share their home (or your home, if you are Kalapuya)?
- Thinking about Kimmerer, what does this story suggest to you about reciprocity and the responsibility humans have to the more-than-human world?
- How does this story contribute to your knowledge of the land that you are on?

**Activity 4 (after reading “Burning Cascade Head”): Research project on ceremonies for the land**

- Kimmerer suggests that the contemporary ceremonies of colonial societies are focused on individual personal rites of passage rather than on the land or other people, plants, and animals. Can you think of any examples? (249-251). The ceremonies from “the old country” likely included ceremonies for the land. Kimmerer recommends “regenerating them here, as a means to form bonds with this land” (250).
- Research and write about a ceremony that is for the land. It is ideal if this ceremony is from one’s own cultural heritage, as Kimmerer suggests. Depending on how long ago and how your ancestors came to this land, and/or how distanced your ancestors are from their own Indigenous heritage, this task may be harder or easier. If students are not able to choose a ceremony from their own cultural heritage, they may research a ceremony that Indigenous peoples who lived in their current location practiced. Note: This option is not an invitation for cultural appropriation; it is intended for students to learn more about the histories, presents, and futures of the Indigenous peoples whose lands they reside on. Indigenous peoples practice diverse spiritual traditions. These traditions are “closed” practice, meaning that they are reserved exclusively for the Indigenous peoples they come from unless express permission is received from tribal elders.
  - Alternative assignment: If students are unable to find a ceremony about the land from within their own cultural heritage, they could still document their research findings and write about why it might have been hard to find good information on this subject.
- Describe the ceremony: when/where was/is the ceremony practiced? Who is the ceremony for? How does the ceremony influence the land? Are there benefits for people, plants, and animals? If so, what might they be? If the ceremony is still not practiced, why is that the case? What knowledge has been lost about the ceremony?
- These research papers should be 4-6 pages long.
Gifting, Reciprocity, and Responsibility

Overview: In her writing, Kimmerer encourages her readers to recognize their relationships with their human and more-than-human kin. She continuously stresses the responsibility humans have to maintain those connections through acts of gift-giving, gratitude, and reciprocity in order to honor the bonds that sustain us. Communities and ecosystems are fostered through intentional actions to better support each other. This section of activities approaches these ideas through multiple lenses, asking us to reflect on our opinions and obligations with each other and our surroundings. It also raises questions of what it means to belong and be responsible to a place or community. The activities in this section range from “getting started” and wrap-up or concluding engagements with this core theme in Braiding Sweetgrass, as well as activities that dig into environmental racism or that teach core biological concepts through the text.

Activities:

1. An Honorable Harvest
2. Choice in a Market Economy
3. Environmental Racism and Injustice
4. Flourishing and Collectivity
5. Reciprocity: Plants and Pollinators (and People Too!)
6. Gift Giving: Concluding Braiding Sweetgrass

Chapters Used, Sections, and Related Activities:

- “Allegiance to Gratitude,” Tending Sweetgrass (Activity 1)
- “The Council of Pecans,” Planting Sweetgrass (Activity 3, 4)
- “Defeating Windigo,” Burning Sweetgrass (Activity 1, 2, 3)
- “Epilogue” (Activity 6)
- “The Gift of Strawberries,” Planting Sweetgrass (Activity 1, 2)
- “The Honorable Harvest,” Picking Sweetgrass (Activity 1, 2, 3)
- “The Three Sisters,” Picking Sweetgrass (Activity 5)
- “Wisgaak Gokpenagen: A Black Ash Basket,” Picking Sweetgrass (Activity 1)

1. An Honorable Harvest

Overview: These activity asks students to engage with the practices Kimmerer demonstrates in “The Honorable Harvest” by researching what goes into products and/or meaningfully reflecting on their own engagement with products.

Activity 1: Thoughtful Consumption

Objective: In this activity, students do the reflection and engagement practice that Kimmerer does in the stationary shop in the mall in this chapter, thinking through their own relationship with the things we buy and use.
Learning Goals: Through thoughtful engagement with the class activities, students will be able to:
- Conduct research into a product, recognize gaps in available information, and draw thoughtful conclusions as to why gaps may exist.
- Think critically and ethically about questions of consumption and how humans should engage with the world.

Key terms: reciprocity

Braiding Sweetgrass readings: “The Honorable Harvest.”

Activity style: research, reflection, discussion

1. As either homework or an in-class activity, students choose one item in your classroom/room, either something that you brought with you today (e.g., a book, a cellphone, a bag, or a laptop) or something that is a more permanent fixture in the room (e.g., a desk, a chair, a lectern, the carpet, a lamp, etc.). Research the item in as much detail as you can regarding the following categories:
   a. What material(s) is the object composed of?
   b. Where is this material sourced?
   c. Where is the material manufactured?
   d. Where does the manufacturing take place?
   e. What peoples or communities contribute to the manufacturing of this item?
   f. Approximately how much does the product cost?
   g. Is the manufacturing facility close to Eugene? If not, how is it shipped and distributed?
   h. Note: Some brands will keep clear records of this on their website, but many will not. You can also email or call to ask. If the information is not readily available, consider why this might be the case.

2. Reflect on the following questions either in-class in a small group, in a Canvas discussion thread, or in a short reflection paper:
   a. Was this process of researching an item what you had anticipated? Did it surprise you? Why/why not?
   b. Was the information easy to find, or was it difficult? Why do you think this is the case?
   c. Compare the approximate cost of the item with the materials list. Do you think that the monetary cost vs. the materials composing the product is a fair or equitable trade? Why/why not?
   d. Would you characterize the product you researched as ethically sourced? Why/why not?

3. Brainstorm a few ways in which you (and your classmates) can reciprocate the gifts in your classroom. What are some of the gifts that you receive from being on UO’s campus? Brainstorm a few ways in which you can reciprocate the gifts given as a campus community.
Activity 2: An Independent Exercise in Gratitude

Objective: The aim of this activity is to have students reflect on their experience with gratitude and mindfulness as a consumer and to practice these skills in their lives.

Learning Goals: Through thoughtful engagement with the class activities, students will be able to:

• Conduct research into a product, recognize gaps in available information, and draw thoughtful conclusions as to why gaps may exist.
• Think critically and ethically about questions of consumption and how humans should engage with the world.

Key terms: mindfulness, gratitude, Honorable Harvest,


Activity style: reading, reflection, discussion

1. Direct students to review the chapters “The Gift of Strawberries,” “Allegiance to Gratitude” and “The Honorable Harvest.”

2. Reflect on this passage from “Wisgaak Gokpenagen: A Black Ash Basket” in Braiding Sweetgrass: “I can muster no reflective moment for plastic. It is so far removed from the natural world. I wonder if that’s a place where the disconnection began, the loss of respect, when we could no longer easily see the life within the object” (Kimmerer, 155).
   • How can being mindful, showing gratitude, and practicing an Honorable Harvest improve our relationship with the Earth?
   • How do these concepts overlap with and diverge from those of modern “green” movements and sustainability?
   • What are ways that you can practice mindfulness as both a consumer and citizen of Earth?
   • What impact do you see this having on yourself and on your human/natural community?

3. Practicing mindfulness and gratitude at home.
   • Locate at least 5 non-plastic items in your chosen space (e.g., a classroom, a kitchen, a desk, in a car, a bedroom, a living room, or a bathroom).
   • Spend a mindful moment with each item, reflecting on where this object came from, where you bought it or who gifted it to you, what this object means to you, and its usefulness in your everyday life.
   • In your journal, write down what the object was and what its natural origins were (i.e., where it came from and from what type of plant or animal).
   • Before putting each item back, thank the life for its gift to you.
• Post-activity journal reflection.
  • How did this activity make you feel?
  • How does seeing possessions, commodities, etc. as gifts change your perception of the world and the space in which you live?
  • How might this activity influence you as a consumer?
  • Is this an activity that could be done in a store? At a restaurant? Online shopping? What are the barriers to gratitude and mindfulness posed in each of these scenarios?

2. Choice in a Market Economy

Overview: This activity asks students to evaluate their methodologies of choosing consumer products and weighing different moral systems to guide them in their deliberations. It also encourages them to brainstorm ways to break free from this cycle.

Learning goals: Through active engagement with the class activities, students will be able to:
  • Describe concepts of consumer responsibility and mindful consumption.
  • Evaluate the philosophy of “voting with your dollar” in a market/consumer economy.

Key terms: consumer responsibility, mindful consumption, sustainability, environmental racism, Windigo economy

Braiding Sweetgrass readings: “The Gift of Strawberries,” “The Honorable Harvest,” “Defeating Windigo”

Activity style: group discussion, close reading

1. What is consumer responsibility? Familiarize yourself with the terms consumer responsibility (San Francisco Department of the Environment), mindful consumption, and “voting with your dollar.” There is even a wikiHow for incorporating mindful consumption into your day to day life, and a toolkit for voting with your dollar.
   a. How are these practices related to sustainability (U.S. Environmental Protection Agency)?

2. Reflect on this passage from “The Gift of Strawberries” in Braiding Sweetgrass: “Don’t buy it.” Refusal to participate is a moral choice” (31).
   • What is Kimerer saying in this passage? What in her thinking does or does not resonate with you?
   • You are likely familiar with the term “vote with you dollar”? What are the values and limitations of voting with your not-dollar, of consciously not buying something instead of buying something deemed “better” (sustainable, ethical, etc.)?
   • Would you say that this practice helps one to live sustainably?
   • How other ways could you see incorporating “refusing to participate [as] as moral choice”?

3. As a group, discuss this passage from “The Honorable Harvest” in Braiding Sweetgrass: “I don’t have much patience with food proselytizers who refuse all but organic, free-range, fair-trade gerbil
milk. We each do what we can; the Honorable Harvest is as much about the relationships as about the materials. A friend of mine says she buys just one green item a week—that’s all she can do, so she does it. ‘I want to vote with my dollar,’ she says. I can make choices because I have the disposable income to choose ‘green’ over less-expensive goods, and I hope that will drive the market in the right direction. In the food deserts of the South Side there is no such choice, and the dishonor in that inequity runs far deeper than the food supply” (196).

- What is Kimmerer saying here about economic disparities and the ability to “vote with your dollar”?
- How do you see economic privilege intersecting with what it means to make responsible/ethical purchasing decisions?
- In the U.S. and/or globally, how does economic privilege intersect with other privileges based on categories such as race, gender, sexuality, immigration status, etc.?

4. As a group, discuss this passage from “Defeating Windigo” in *Braiding Sweetgrass*: “The shortage is due not to how much material wealth there actually is, but to the way in which it is exchanged or circulated. The market system artificially creates scarcity by blocking the flow between the source and the consumer. Grain may rot in the warehouse while hungry people starve because they cannot pay for it. The result is famine for some and diseases of excess for others. The very earth that sustains us is being destroyed to fuel injustice. An economy that grants personhood to corporations but denies it to the more-than-human beings: this is a Windigo economy” (376).

- What is the injustice that Kimmerer is describing?
- In your own words, what is a “Windigo economy”?
- How does a Windigo economy fuel injustice and perpetuate environmental racism?
- Do you see examples of a Windigo economy in your everyday life? What could be done to dismantle the Windigo economy?

3. Environmental Racism and Injustice

**Overview:** The effects of white supremacy can be seen in the environment, both the built environment (where people generally live) and wilderness or other spaces deemed primarily “natural,” which is to say, more-than-human but deemed as for human use, management, and/or consumption. The activities in this section overview the reality of environmental racism and environmental injustice and draw on Robin Wall Kimmerer’s threading throughout *Braiding Sweetgrass* of an alternative approach based on reciprocity and gifts between human and Mother Earth, a.k.a. the more-than-human world.
Activity 1: Discussing Environmental Racism and Environmental Justice Through Braiding Sweetgrass

Objective: The aim of this activity is to facilitate discussions surrounding racial inequality in America, to expose students to the injustices around them, and to have students actively, and respectfully, engage with this topic. Remind students that hate speech, harassment etc. will not be tolerated!

Learning Goals: Through active engagement with the activities in this section, students will be able to:

- Understand the terms environmental racism and environmental injustice, and how they were intentionally created by racist policies in America.
- Understand the term “embodiment” and the very real effect systemic racism, and environmental racism have on human bodies.
- Recognize that access to clean water, healthy food, and green spaces are inequitably distributed.

Key terms: Environmental racism, redlining, the allotment era, food deserts, food apartheid, food sovereignty, environmental justice


Activity style: reflection (in writing or in class), in-class discussion, close reading, instructor overview

1. Instructor set-up: Introduce students to environmental justice and environmental racism.
   - What is the history of environmental justice in America?
   - What are the principles of environmental justice?
   - How does environmental justice combat environmental racism?
   - Are there environmental justice groups in your community?
     - Additional background, if helpful, for classes that do not normally engage with these topics. In America, not everyone has access to natural or green spaces. Deliberately constructed racial disparities in access to healthy food (food apartheid and food deserts), clean air, water (e.g., Standing Rock and Flint, Michigan), and green spaces (e.g., national, state or community parks) is called environmental racism.

2. In writing or discussion, have students reflect on:
   - Redlining and the allotment era, discussed in “The Council of Pecans”
     - What caused these practices?
How did they lead to the racial disparities that we see today?
• Where do you see racial disparities present in your Eugene or the community you came from?

**The consequences of environmental racism.**
- What effect does environmental racism have on human bodies?
- How has environmental racism contributed to racial health disparities during the COVID-19 pandemic? (see “Environmental Racism Has Left Black Communities Especially Vulnerable to COVID-19”)  
- How do you think not having access to green spaces affect the mind/body/soul?

3. **Discuss the concepts of food deserts and food apartheid and food sovereignty.** As a group, discuss Kimmerer’s intentions as described in this passage from “The Honorable Harvest” in *Braiding Sweetgrass*: “I don’t have much patience with food proselytizers who refuse all but organic, free-range, fair-trade gerbil milk. We each do what we can; the Honorable Harvest is as much about the relationships as about the materials. A friend of mine says she buys just one green item a week—that’s all she can do, so she does it. ‘I want to vote with my dollar,’ she says. I can make choices because I have the disposable income to choose ‘green’ over less-expensive goods, and I hope that will drive the market in the right direction. In the food deserts of the South Side there is no such choice, and the dishonor in that inequity runs far deeper than the food supply” (196).
  a. In what ways does environmental racism prevent, or instigate, sustainability efforts?
  b. How can movements for (and policies that support) food sovereignty mitigate environmental injustices?
  c. **Note to the instructor:** A new activity that addresses food sovereignty and Pacific Northwest tribes’ food practices is found elsewhere in this guide. Please see Appendix B.

4. **As a group, discuss this passage from “Defeating Windigo” in Braiding Sweetgrass:** “The shortage is due not to how much material wealth there actually is, but to the way in which it is exchanged or circulated. The market system artificially creates scarcity by blocking the flow between the source and the consumer. Grain may rot in the warehouse while hungry people starve because they cannot pay for it. The result is famine for some and diseases of excess for others. The very earth that sustains us is being destroyed to fuel injustice. An economy that grants personhood to corporations but denies it to the more-than-human beings: this is a Windigo economy” (376).
  a. What is the injustice that Kimmerer is describing?
  b. In your own words, what is a Windigo economy?
  c. How does a Windigo economy fuel injustice and perpetuate environmental racism?
  d. Do you see examples of a Windigo economy in your everyday life?
  e. How do we defeat Windigo?

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**Activity 2: Using GIS and Landscape Design to Critically Evaluate Green Space Accessibility and Inform Public Policy**

**Objective:** The aim of this activity is to increase student awareness of green space inaccessibility in their local communities, states or countries, and to increase students’ experiences with GIS to inform public policy.
Learning Goals: Through active engagement with the activities in this section, students will be able to:

- Understand that access to clean water, healthy food, and green spaces are not universal.
- Critically evaluate green space accessibility in their own communities.
- Create new ways to address disparities in green space accessibility or inform public policy in their local communities.

Key terms: Environmental racism, GIS, wildlife corridor

Braiding Sweetgrass readings: “Defeating Windigo” “The Honorable Harvest”

Activity style: group discussion, research project, GIS activity, landscape design project

1. Reflect on this passage from “Defeating Windigo” in Braiding Sweetgrass: “The shortage is due not to how much material wealth there actually is, but to the way in which it is exchanged or circulated. The market system artificially creates scarcity by blocking the flow between the source and the consumer. Grain may rot in the warehouse while hungry people starve because they cannot pay for it. The result is famine for some and diseases of excess for others. The very earth that sustains us is being destroyed to fuel injustice. An economy that grants personhood to corporations but denies it to the more-than-human beings: this is a Windigo economy” (376).

2. Have students reflect on the health consequences of having access to green spaces. Research shows that outdoor green spaces (Unsworth et al., 2016; Nisbet et al., 2019) and indoor plants (Koga & Iwasaki 2013; “Why Indoor Plants Make You Feel Better”) have a positive effect on human well-being.

3. As a group, discuss the following questions:
   a. What barriers prevent green space accessibility (e.g., economic, transportation, or proximity)?
   b. How many green spaces are in your community? How accessible are they? Are they close to densely populated areas, near public transportation stops, or require a lot of travel to get to? Do they require special access, entrance or parking fees?

4. Use Geographic Information System (GIS) to evaluate the accessibility of green spaces in your local community, in a given region or state, or across a country.
   a. Have students make public policy-informing maps in GIS using publicly available datasets such as population demographics and density, transportation routes, waterways or drainage systems, plant coverage and parklands, measures of biodiversity, areas of high pollution/industry etc.
b. **Students should address the following questions after creating their figure:** What conclusions could you draw from your figure? How can they be used to inform public policy? Have you highlighted areas that are in need of green spaces? Have you found any “at risk” areas in need of management or state/federal resources (e.g., regions of high pollution and low green space accessibility, or places where a wildlife corridor would be beneficial)?

c. **Key study to reference:** “Historically Redlined Neighborhoods Are More Likely to Lack Greenspace Today: Study”

5. **Landscape design project.** Find a map of your local community. Design a park or greenway that connects different neighborhoods or communities, has the potential to increase access to green spaces, provides a wildlife corridor, uses sustainable materials etc. Potential to make this activity a design competition!

6. **Policy project.** Have students research and then craft a policy proposal to mitigate environmental injustice in the local community through a green space project.

Activity 3: Environmental Justice Case Study Research Project

**Objective:** The aim of this project is to expose students to environmental racism and the very real consequences it has on human bodies, and to get students to engage with public policy to come up with real solutions.

**Learning Goals:** Through active engagement with the activities in this section, students will be able to:

- Research and write a case study focused on a real-life example of Environmental Injustice, its causes, and possible remedies.

*Braiding Sweetgrass readings:* “The Honorable Harvest,” “Defeating Windigo”

**Activity style:** research project

1. **Students should focus on a specific issue or case study** (e.g., Flint, Michigan; DAPL) related to environmental racism and environmental injustice. Younger students may benefit from receiving a list of possibilities.

2. **Students should address the following questions in their research projects:** What is the case study? Is it widely known? How did it manifest? What, if anything, is being done to fix it? Are there public policies in place? What would you suggest as necessary steps moving forward? How is this an example of environmental racism or environmental injustice?
4. Flourishing and Collectivity

Overview: This activity asks students to consider how individuals and communities can flourish together, using frames of reference provided by Kimmerer and modern ethicists.

Learning goals: Through active engagement with the class activities, students will be able to:
- Analyze “The Council of Pecans” chapter and extrapolate how the concepts in the chapter can be applied to contemporary societies.
- Connect ideas from two different readings to contemporary circumstances.

Key terms: collective action, individualism

Braiding Sweetgrass readings: “The Council of Pecans”


Activity style: close reading, compare/contrast, discussion

1. Break the class into small groups to closely read a passage from Kimmerer and a passage from Maaravi, et al. Assign a notetaker and a spokesperson for each group.
2. Read the middle paragraph on page 15 regarding mast-fruiting trees from Kimmerer: “This boom and bust cycle remains a playground of hypotheses for tree physiologists and evolutionary biologists. Forest ecologists hypothesize that mast fruiting is the simple outcome of this energetic equation: make fruit only when you can afford it. That makes sense. But trees grow and accumulate calories at different rates depending on their habitats. So, like the settlers who got the fertile farmland, the fortunate ones would get rich quickly and fruit often, while their shaded neighbors would struggle and only rarely have an abundance, waiting for years to reproduce. If this were true, each tree would fruit on its own schedule, predictable by the size of its reserves of stored starch. But they don’t. If one tree fruits, they all fruit—there are no soloists. Not one tree in a grove, but the whole grove; not one grove in the forest, but every grove; all across the country and all across the state. The trees act not as individuals, but somehow as a collective. Exactly how they do this, we don’t yet know. But what we see is the power of unity. What happens to one happens to us all. We can starve together or feast together. All flourishing is mutual” (15).
3. Compare and contrast the example of collective action seen in mast-fruiting trees with passages from the article: ““The Tragedy of the Commons’: How Individualism and Collectivism Affected the Spread of the COVID-19 Pandemic”:
• “The individualism-collectivism continuum (11) describes the degree to which individuals in a given culture see themselves as independent—vs. interdependent—of the society they live in. It translates to individuals' self-concept of “I” or “we,” which in turn, dictates how much they care for themselves and their immediate families only, as opposed to the entire community they live in, or—the larger whole.”

• “One cultural aspect that may explain the disparity in fatalities among different countries is the public cooperation and willingness to sacrifice to support the common good and adhere to health guidelines (24). In three studies, we found a tie between individualism (vs. collectivism) to epidemic prevention measures at the personal level (Studies 2 and 3) and a relation between countries' individualism (vs. collectivism) and the mortality rate they suffered at the societal level (Study 1).”

4. Given the passages above from Kimmerer and Maaravi, et al., as well as your background knowledge, consider the following questions regarding what mast-fruiting trees can teach us about collective action:

- Is there an example of collective action that has been powerful for the well-being (flourishing) of a community that you can think of? Choose one example of collective action and describe the impact that it had on the well-being, or flourishing, of a community. Was collective action necessary for the community? Why/why not? What might have happened if individual action was taken instead?
- The U.S. has a history of individualism as exemplified by settler stealing of Indigenous land, as described by Kimmerer in “The Council of Pecans.” Choose an example of individualism that has led to the lack of flourishing of a community. Why do you think individual action is taken instead of collective action? What might have happened if collective action was taken instead?
- Kimmerer writes that this book is an offering of “a braid of stories meant to heal our relationship with the world” (x). Do you think that healing our relationship with the world involves collective action? Why/why not? If so, what collective actions would help heal our relationship?
- Brainstorm or research examples of collective action taking place on UO’s campus. What campus movements require collective action? How can you participate in collective action on campus as an individual?
- In what ways has this activity shaped your perspective on collective vs. Individual action?

5. Return to the larger class and ask the groups to each share some of the highlights from their conversation.

5. Reciprocity: Plants and Pollinators (and People Too!)

Overview: This activity helps students explore the biology of plants and their symbiotic relationships. They will also consider what types of plants are commonly consumed by humans and their sources.

Activity 1: Plant Biology

Objective: The aim of this activity is to bring students up close and personal with plants, to see the relationships between them, and to become familiar with the basic structures of a plant.
Learning goals: Through active engagement with the class activities, students will be able to:

- Identify the different parts of a plant.
- Describe the possible relationships between plants and their pollinators.
- Identify different types of fruits and understand how they are different from “vegetables” (e.g., understand why tomatoes and squash are really fruits)

Key terms: plant biology, pollination, coevolution, mutualism, fruit, vegetable

Braiding Sweetgrass readings: “The Three Sisters”

Activity style: reading, diagram labelling, plant “dissection,” personal reflection

1. Direct students to review the chapter "The Three Sisters" (128-140).
2. Identifying the parts of a plant. On a worksheet, have students label the parts of a plant (e.g., sepal, tepal, petal, pistil, stigma, style, ovary, ovule, stamen, anther, filament, and stem) on a diagram (see examples below) and determine whether the flower is a eudicot, monocot, or magnoliid.
   a. This activity will work best if this topic coincides with a flower “dissection” - bisexual flowers (having both male and female parts in the same flower) such as lilies, irises, snapdragons, delphinium, and magnoliids show a nice diversity of flower structures (e.g., an iris bract and the nectar spur of delphiniums), but it would also be interesting to incorporate dioecious plants such as oso berry, ginkgo, or holly (plants that are either entirely male or entirely female), and monocious plants such as squash (one plant having both male flowers and female flowers). For additional help, see this great article “What Is the Difference Between Dioecious and Monoecious Plants?”

b. Flower diagram (examples):
3. **Relationships with pollinators.** Familiarize yourself with the terms [pollination](#) and [coevolution](#). Incorporate a discussion about the [evolutionary relationship](#) between flowers (plants) and their pollinators, e.g., [flower shape, scent and color](#) and how they attract certain pollinators in a reciprocal mutual relationship.

   a. What are the gifts that flowers give to pollinators? What gifts do pollinators give plants?
   b. Why is this relationship so important for humans, biodiversity, and the Earth?
   c. What do plants that are pollinated by the wind look like? Do they have different structures? Do they put energy into attracting pollinators?
   d. What happens to a plant if their pollinator disappears? What happens to a pollinator if their plant disappears?
   e. What are methods that farmers use to pollinate their crops?
   f. Introduce students to the [mass pollinator disappearance crisis](#) and [colony collapse disorder](#) and their [causes](#). What are ways that you can support native pollinator biodiversity in your
yard, garden, or green spaces? Can you “vote with your dollar” to make a difference? How does support pollinator biodiversity align with the mutual, symbiotic flourishing Kimmer discusses in “The Three Sisters”?

4. Fruit, drupe, or vegetable?
   a. Ask students to name a few favorite fruits and a few favorite vegetables.
   b. Next, explain (or have students research) what a fruit really is (see the New York Botanical Garden). The Merriam-Webster dictionary also gives a great short article about the difference between fruits and vegetables, and even reveals that bananas are berries! Things can get even more exciting, or challenging, by introducing hesperidia, pepos, accessory fruits, aggregate fruits, drupes, and multiple fruits. This is a great opportunity to talk about, or dissect, plant ovaries (fruits) and ovules!
   c. Grocery store challenge. Have students go to their local grocery store or bodega (or neighborhood garden) and identify the different types of fruits and vegetables that they come across (aim for at least one of each type discussed above)! Have students log these observations in their lab notebook.

Activity 2: Reciprocity in the Beans

Objective: The aim of this activity is to review interspecific biological interactions and to come up close and personal with one of the important reciprocal relationships discussed in Braiding Sweetgrass.

Learning goals: Through active engagement with the class activities, students will be able to:
   • Identify Rhizobium bacteria in legume root nodules
   • Describe the mutual relationship between legumes and nitrogen fixing bacteria

Key terms: mutualism, nitrogen fixing bacteria

Braiding Sweetgrass readings: “The Three Sisters”

Activity style: reading, plant “dissection,” personal reflection

1. Familiarize yourself with the species interactions mutualism, predation, parasitism, commensalism, and ammensalism, as well as the term reciprocity (as discussed in Braiding Sweetgrass). This background information may already be covered in certain classes.

2. Discuss this passage from “The Three Sisters” in Braiding Sweetgrass: “My students often run to me with a handful of roots from a bean they’ve unearthed, with little white balls clinging to strands of root. ‘Is this a disease?’ they ask. ‘Is something wrong with these roots?’ In fact, I reply, there’s something very right. These glistening nodules house the Rhizobium bacteria, the nitrogen fixers. Rhizobium can only convert nitrogen under a special set of circumstances. Its catalytic enzymes will not work in the presence of oxygen. Since an average handful of soil is more than 50 percent air space, the Rhizobium needs refuge in order to do its work. Happily, the bean obliges. When a bean
root meets a microscopic rod of *Rhizobium* underground, chemical communications are exchanged, and a deal is negotiated. The bean will grow an oxygen-free nodule to house the bacterium, and, in return, the bacterium shares its nitrogen with the plant. Together, they create nitrogen fertilizer that enters the soil and fuels the growth of the corn and the squash, too. There are layers upon layers of reciprocity in this garden: between the bean and the bacterium, the bean and the corn, the corn and the squash, and, ultimately, with the people” (134).

a. How would you characterize the relationship Kimmerer is describing?

b. Can you think of any other relationships like this, either in the human or more-than-human world?

c. How and why do you think that this relationship formed?

3. **Greenhouse lab.** In the greenhouse, grow legumes for each student in your lab/discussion section. You may need to inoculate the growing soil with *Rhizobium* bacteria. For help, here is a great guide “Inoculating Legumes: A practical guide.” Have students “dissect” the root nodules under a microscope. Nodules may need to be stained to see the rod-like *Rhizobium*.

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**6. Gift Giving: Concluding Braiding Sweetgrass**

**Overview:** This activity asks students to consider the nature of gifts as well as how they express and reflect the relationships present between giver and receiver. Students will be asked to reflect on these ideas through their own experiences with gifts, friends, and Mother Earth.

**Learning goals:** Through active engagement with the class activities, students will be able to:

- Understand the gift giving process as represented in *Braiding Sweetgrass*.
- Determine their personal relationship with gift giving and its significance.
- Participate in the process of gift giving without a means of attachment (gift should be significant but costless).
- Observe personal experience and attachment to gift giving.

**Key terms:** gift, Mother Earth

**Braiding Sweetgrass readings:** “Epilogue: Returning the Gift”

**Activity style:** reading, reflection writing/discussion, critical thinking

1. **Review Epilogue: Returning the Gift (380-384).** In reflective writing or discussion, have students consider the following:

    - What defines a gift?
• Write down significant gifts you have received in the past. What gifts have you received from being a part of the UO community? After reading this chapter, how might this list change?
• Do you consider an act or an idea to be a gift? What about a heartfelt letter? A poem? A content idea? Why or why not would these be considered a gift?
• How do you “gift” yourself?

2. **In writing or discussion, think of a friend, family member, UO community member, or another person you know well.**
   • What do you think their favorite gift would be?
   • Do you think your person would have similar or different answers than the ones you provided about gifts above?
   • What gift could you give the UO community in reciprocity for the gifts that it provided you (as brainstormed above)?
   • After you have done some significant thinking, decide on a gift you would like to give to your friend, family member, or UO community. This gift should not cost any money. Create or find something in nature that would have significance. Gift this to your friend.

3. **In writing or discussion, answer some/all of the following questions:**
   • What did you decide to give to the person chosen above?
   • What was the significance of your gift?
   • Did you receive anything in return for your generosity? Regardless of the answer, what does the action mean to you?
   • Did the chosen recipient relay what the gift meant to them?
   • Overall, what did this exercise tell you about yourself and how you will give or receive gifts in the future.

4. **In writing or discussion, think of Mother Earth/the-more-than-human-world.**
   • What gifts have you provided for her?
   • Do you think you should receive anything in return?
   • In what ways do you feel like Mother Earth provides for you?
   • What do you think you can do to provide for her?
   • How has this activity affected how you think about what you can and should give to Mother Earth and to others?