THE TEND, GATHER & GROW
TEACHER GUIDE

An overview for the Tend, Gather and Grow Teaching Toolkit: a K–12 curriculum for cultivating healing relationships with wild plants, local landscapes, and cultural traditions
This Teacher Guide is an introduction to and overview of the Tend, Gather & Grow Teaching Toolkit.

The toolkit comprises a K–12 curriculum on Indigenous plants and ecosystems of the Pacific Northwest, with supporting educational resources, plant identification cards, educational posters, videos and more.

Modules in the curriculum include:

**Wild Food Traditions** with an overview on seasonal foods and Native American nutrition principles. Lessons include spring wild greens, edible wild berries, healthy traditional beverages and energizing traditional snacks.

**The Cultural Ecosystems Field Guide** with an overview on how Native Americans have cultivated ecosystems to promote plants that are used for food, medicine, and traditional technologies. Lessons include a cultural ecosystems overview, and field trips to saltwater b aches, camas prairies, food forests, wetlands, and mountain huckleberry meadows.

**The Herbal Apothecary** with an overview on harvesting, processing, and preparing Northwest plants for medicine and skincare. Lessons include herbal teas, infused herbal vinegars, herbal honeys, healing poultices, infused oils and salves, aromatherapy basics, and making herbal baths.

**Plant Technologies** with an overview on the material qualities of Northwest plants and ways that people have used those qualities to meet their own needs. Lessons include building a tiny house, plant superpowers, cordage making, weaving, and dyeing.

**Tree Communities** with an overview on how trees create a forest community, tree identification for common trees of the Pacific Northwest and Coast Salish stories. Lessons include a tree walk and evergreen conifer trees.

Find more at [www.goodgrub.org/tend-gather-grow](http://www.goodgrub.org/tend-gather-grow)
# Tend, Gather & Grow Teacher Guide

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Tend, Gather and Grow ("Tend" for short) is a place-based curriculum dedicated to educating people about plants, local landscapes, and the rich cultural traditions that surround them. Tend focuses on native and naturalized plants of the Pacific Northwest region and includes Northwest Coastal Native knowledge, stories, and plant traditions.

Tend, Gather and Grow is intended for K–12 teachers and community educators with a focus on serving Native and regional youth. It is adaptable to many K–12 and adult learning environments. Lessons can be taught in formal or informal educational settings including public school classrooms, community workshops, camps, after-school programs, native plant garden programs, and home-school contexts. Tend lessons are intended to supplement regular curricula, although many fulfill educational requirements. Teachers may choose to weave plant-based learning into general studies in science, social studies, art, reading, math, home economics, and other content areas. Lessons can be taught individually, based on a single topic or plant, or they can be offered in themed modules to broaden student knowledge and skills over time and with experience.

The teaching of reciprocity (building reciprocal relationships) is a foundational part of the Tend curriculum. Reciprocity is a form of stewardship and includes recognizing, valuing, and taking an active part in upholding the complex web of relationships between humans and nonhumans. The curriculum emphasizes ways that teachers can create spaces for students to develop meaningful connections and experiences with plants and thereby build resiliency, health, social/emotional intelligence, and care for the land. While teachers don’t need to be content experts to offer lessons, those that have an authentic sense of curiosity, develop their own personal connection to plants and places, and actively practice reciprocity will have the greatest impact on their students’ learning.

THE CURRICULUM

The Tend curriculum has thematic modules, each with multiple lessons, including:

- **Cultural Ecosystems Field Guide**: This module is about reframing the settler/dominant narrative of Northwest Coast Native People. Typically, Native Communities on the Northwest Coast have been characterized as hunter-gatherers. This is not an accurate representation, and erases the deep-time relationships and cultivation practices of Native People. This module includes an overview lesson on cultural ecosystems and a field guide to camas prairies, saltwater beaches, food forests, wetlands, mountain huckleberry meadows, and urban landscapes. Students learn about reciprocity and explore how they might both receive the gifts of the land and give back to the land.

- **Tend, Gather and Grow Plant Guide**: This guide includes 18 regional plants—each with an overview and multiple lessons. Teachers can choose plants and lessons based on what is available, in season, and most relevant to students. Plants that are at risk for overharvest have not been included in the curriculum unless there is a specific emphasis on restoration.

- **Wild Food Traditions**: This module focuses on seasonal attunement and ethical harvesting of native and wild plants including spring greens, summer berries, healthy snacks, and traditional beverages.
Wild Food Traditions (cont’d): Each lesson includes an extensive teacher overview with plant identification, cultivation practices and ethical harvest techniques, and recipes for preparing and preserving foods.

- **Herbal Apothecary:** This module includes a plant medicine overview and lessons on herbal teas, infused vinegars, honeys, poultices, infused oils and salves, herbal baths, and aromatherapy.

- **Plant Technologies:** In this module, students learn how humans have used plant qualities to create human technologies for millennia. Students explore ways to gather, process, and make useful items including cordage, baskets, mats, tools, and dyes from plant materials. This module is rooted in STEAM concepts.

- **Tree Communities:** This module includes a northwest native tree walk, two lessons on evergreen conifer trees, and is linked to tree lessons in the Tend, Gather and Grow Plant Guide. Social/emotional teachings—including collaboration, resilience, adaptability, and generosity—are integrated throughout these lessons.

**Additional Teaching Resources Include:**
- Short teaching videos featuring Salish storytellers, plant experts, and youth. Links are embedded in lessons and can be found at https://vimeo.com/cedarboxstories.
- Educational materials including games, posters, plant identification cards, and recipe cards.

**OVERARCHING CURRICULUM GOALS**
- Increase regional awareness of local plants and ecosystems; encourage the development of healing relationships with land, self, and community.
- Protect and promote healthy plant communities and ecosystems through education, ethical harvesting, and ecological restoration.
- Increase youth access to and consumption of nutritious wild plants.
- Cultivate a love for scientific inquiry and promote STEAM career pathways.
- Promote the value and significance of Indigenous Science and Native ways of knowing, doing, and being, including intergenerational, experiential learning, the transmission of knowledge through stories, and recognizing and building reciprocal relationships.
- Develop sensory observation and storytelling skills as a means for self-expression and social change.
- Encourage educators and young people to be advocates and allies for Northwest Native peoples, tribal sovereignty, and cultural ecosystems.

We recognize that many native plants have been cultivated by Indigenous People since time immemorial. When we refer to “wild,” we are referring to plants that people find growing in local landscapes without the need for agricultural cultivation.
NEXT GEN SCIENCE STANDARDS AND S.T.E.A.M. CONNECTIONS

Each lesson is aligned with the Next Generation Science Standards (NGSS), Washington State’s adopted science standards. NGSS is not a set curriculum and has three-dimensional performance expectations progressing from grade K through 12—focusing in on fewer core ideas, and expanding more on application of science and engineering practices. Within each Tend lesson, the performance expectation, scientific and engineering practices, disciplinary core ideas, and crosscutting concepts are identified. Students apply STEAM (science, technology, engineering, arts, and mathematics) skills to build towards mastery of these performance expectations. Tend lessons are intended to supplement students’ growth towards a performance expectation, and not as a stand-alone assessment of student growth within a particular standard.

CURRICULUM BACKGROUND

Our Tend, Gather and Grow team includes 15 people sharing a common passion for connecting people with plants, the land, and cultural traditions. Several of our team members have worked together in tribal health and natural resources programs. Over the years we have heard consistent requests for educational resources designed for youth. The Tend curriculum is our effort to meet that need. Collectively, we have knowledge and skills in teaching, environmental education, Northwest Native culture and storytelling, ethnobotany, herbal medicine, traditional technologies, art, media, social justice, and youth advocacy. (See the “About Tend Team” section at the end of this guide). Elise Krohn has served as the project lead, and wrote the plant overviews unless otherwise noted. The Center for World Indigenous Studies housed the project in 2015. GRuB (a food justice-centered nonprofit in Olympia, WA) adopted the project in 2016. A list of the generous partners who made this work possible is included at the end of this Teacher Guide.

Co-developing the curriculum has been an opportunity for our team to be in community with each other, share our love of plants, deepen our knowledge, and support each other along the way. Our team met monthly for several years to study plants in the seasons and co-design lessons and activities. We also worked with Native elders, cultural specialists, and other regional experts in developing lessons—especially regarding storytelling and plant technologies. The curriculum includes quotes and instructions from these individuals.

Our team has piloted lessons in tribal, public, and private schools, youth camps, community workshops, and informal educational settings. In the second year of development, we began offering teacher trainings at GRuB and local educational organizations. We have also facilitated two year-long tribal community educator cohorts where 16-20 educators from Western Washington tribes and the Seattle area gather monthly for full-day workshops. These educators are implementing the Tend curriculum in a variety of settings including tribal schools, health and wellness programs, behavioral health programs, youth camps, and more.

Curriculum Review Process

Tend, Gather and Grow has been reviewed for accuracy, ethical harvesting practices, and culturally-appropriate content by members of the Tend team and tribal cohort members, and is currently being reviewed by an expert advisory council supported through a National Science Foundation grant. A list of reviewers is included at the end of the Teacher Guide. Our team continually learns from and responds to feedback from educators and students.
HONORING PLANTS, PLACES, AND CULTURAL TRADITIONS

*Tend, Gather and Grow* is a place-based curriculum that includes Northwest Coastal Native culture and plant traditions. It is intended to support the movements for Indigenous sovereignty and cultural reclamation, as well as encourage non-Indigenous communities to live more respectfully and sustainably in relation to the natural world. *Tend* has been designed by Native and non-native educators and is intended for use by Native and non-native educators and their students.

There are inherent tensions in the usage of this curriculum by a diversity of audiences including concerns of cultural appropriation and misuse of plants and cultural landscapes. The curriculum exists, as we all do, within a painful and persistent history of colonialism, white supremacy, and systematic oppression. Historic and ongoing colonial settler practices negatively impact Native People and their traditional lands. Plant communities have changed drastically and many important cultural foods and ecosystems are diminished and difficult to access. Cultural appropriation and a misuse of knowledge among settler communities has undermined tribal sovereignty in several ways, including researchers claiming copyright authority over Indigenous knowledge and the overharvest of plant communities. For instance, as the health benefits of mountain huckleberry are more broadly learned, huckleberry stands cultivated by Native Peoples for thousands of years have been damaged and overharvested by non-Native foragers and commercial harvesters.

**Intellectual Property Rights and Protected Knowledge**

Many Native People hold cultural knowledge very close in order to protect plants, places, and cultural traditions. There may be multiple reasons for this. In Northwest Coastal Native Culture, knowledge is considered wealth and can be a part of heritage. Harvest sites, plant knowledge, recipes, and spiritual traditions may be passed down through a family or a spiritual community. This may protect the knowledge so it is not misused, and the plants so they continue to thrive. A teaching that Skokomish elder Bruce Miller shared is that having people within a community hold distinct knowledge helps the community to need each other and work together. In his words, “You don’t teach your children everything the same. If you teach them everything the same, they won’t need each other and the world will fall apart.” This is in contrast to dominant Western culture, which holds a collective belief that everyone should have free access to knowledge.

The *Tend* team has collaborated with tribal elders and other tribal culture keepers to ensure that information in this curriculum is appropriate to share broadly. All stories and plant teachings are included with permission from the storyteller or plant knowledge keeper. We encourage educators and students to explore what is appropriate to share with others, and to add specificity around local language, culture, stories, and places as appropriate. We believe that cultural diversity is part of our richness as people. Educators can create opportunities for immigrant students to share their knowledge and traditions as well, and plant uses from around the world are included in the curriculum to encourage this.
A NOTE ABOUT PAST AND PRESENT TENSE IN THE CURRICULUM

There are times throughout the curriculum where we refer to Coast Salish and other Northwest Native peoples’ practices in the past tense. This is a reflection of the fact that like all cultures, Northwest Native cultures have evolved over time. However, many of the changes in Northwest Native culture since the mid-19th century are the result of historic and ongoing settler colonial practices, including their impacts on Native foods and cultural ecosystems. It is these disruptions we are referring to when writing in the past tense.

It is important for students to understand that the Indigenous people of Washington State are still here and are central to the economic, ecological, and social vibrancy of all of our communities. Today there are 29 federally recognized and three non-recognized tribes in Washington State. Along with tribal long-term commitments to the health of salmon and other aquatic animals and habitats, many of these vibrant, resilient communities are also revitalizing the cultivation of cultural ecosystems and are working to increase the consumption of culturally significant plant foods.

STRATEGIES FOR EDUCATORS

We offer the following strategies to support educators (particularly non-Indigenous) in implementing the Tend curriculum in ways that honor plants and the Indigenous people who have stewarded them for millenia:

Incorporate Local Knowledge, including Native American Culture and Language

The Tend Curriculum is specifically rooted in Northwest Native culture. Teachers are encouraged to highlight local tribal communities including history, language, and current issues and stories, which may differ considerably between tribal communities—even within Western Washington. Cultural specificity should be acknowledged and explored, rather than Native cultures being generalized.

- Explore the Since Time Immemorial Curriculum and Native Knowledge 360° which includes materials, lessons, videos, and whole modules on Northwest Tribes.
- Bring in the voices and wisdom of community members through guest speakers and videos. Avoid putting individual community members and students on the spot to share on behalf of an entire culture. See “Teachers: How to Successfully Welcome a Native Educator into your Classroom” for helpful considerations in inviting guests to your classroom. Practice reciprocity with your speaker by offering a gift or monetary compensation.
- Host a discussion about intellectual property rights and how values and protocols can differ among different cultures. Give people permission to share only what is appropriate, and help students to understand why knowledge is protected.
- Emphasize the resiliency of Indigenous communities in the face of intentional oppression.
**Reflect on Your Own Cultural Identity and Experiences**

You can model the ongoing practice of learning about the land, histories, and communities in which you teach. You can also investigate your own collections of (sometimes hidden) beliefs, habits, biases, and privileges that impact the living communities you are in relation with. Rather than focusing on who is right or wrong, we can strive to understand different worldviews and perspectives without trying to erase differences. Just as diversity in nature makes ecosystems more resilient, cultural diversity and learning about multiple perspectives can make a learning community more resilient. The following strategies are particularly relevant for white educators.

- Explore your identities and find support from peers as you uncover your blind spots and privileges.
- Read and talk about race, racism, tribal sovereignty, colonialism, and white privilege with your friends, co-workers, and family!
- Listen to educators who identify as Black, Indigenous, and People of Color.
- Model cultural humility by acknowledging that you are always learning and growing. Be willing to try on new perspectives and experiences. Say, "I don’t know" when you don’t.
- Say and do something when you notice the centering of whiteness or the silencing of community voices.

**Work in Solidarity (For non-Native educators)**

A goal of the *Tend* curriculum is for youth, teachers, and community members who interact with it to leave the experience as better allies to tribal communities. Empower youth to question inequities and engage as leaders in this work.

- **Actively listen to Indigenous people and center their voices and leadership**; follow their lead. Don’t assume you know what they want or need. Relationship building takes time.
- **Learn about current issues and future visions that are alive in Indigenous communities.** Read and listen to Native media sources. Contribute to and participate respectfully in public local cultural events to better understand the range of Native cultural traditions in your area.
- **Build partnerships with community groups and tribes.** When decisions are being made, notice who is at the table. Is there a local tribal representative(s) present? If not, work to build relationships with local tribe(s) to get their input. Become aware that consultation with one person from a tribe does not mean you have official consent or representation from a tribal nation.
- **Develop partnerships and collaborative relationships to increase Indigenous peoples’ access to and care of land.** Seek out tribal leadership from those whose homelands you reside upon, but also realize some projects may be more appropriate to engage directly with local, grassroots organized Indigenous people.
- **Participate in service learning that aligns with and/or directly supports tribal sovereignty and/or environmental restoration.** Examples might include working in a tribal garden, assisting with the processing of native foods, participating in stream restoration, or fundraising for Native-led grassroots change movements and campaigns.
- **Remember to not be pushy** or to put your own needs over those you are attempting to serve or to ally with. Sometimes no response to a question is a cultural way of saying no.
THE PURPOSES AND USES OF TRADITIONAL NATIVE STORYTELLING
by Roger Fernandes, Lower Elwha S’Klallam storyteller

For most of human history people used storytelling as the primary means of learning, teaching, sharing, and communicating with one another. Today we rely on technologies like writing, reading, film, and computers to do that same work. The assumption is that these new methods are equal to, or even superior to, the process of oral communication. The ability to share and learn from stories adds dimensions to the communications and teaching processes, that the modern systems lack.

Another important element to this discussion is that our human mind can remember much more than we believe. We allow these new systems to replace what is a basic human gift: our memory. A fellow educator once said, “When we write something down, we have permission to forget it.”

Stories are “given power through the moisture of our breath.” This ancient Native teaching reminds us that the breath we share gives a story its life, and from that condition we can find what the story has to teach us at many levels. It is a basic Native belief that stories are living things and our job is to help them on their journey by sharing them.

The simplest and most basic way to understand all of the above is to simply tell a story. To do this, one must have the story memorized and “know it by heart.” Once it is known “by heart” it is in one’s heart; it is now a part of that person’s psyche/spirit and can do its work at that level.
Harvest Respectfully

The Tend Curriculum encourages people to identify, harvest, honor, and utilize local plants while also emphasizing the critical importance of protecting native foods and cultural ecosystems. Plants are living beings who have family, neighbors, and friends. They communicate with and care for each other. When we are in their space and are gathering them for food and medicine, how can we be respectful? How do we make sure we leave enough to share with others and for the plant community to thrive? You would not take everything from the house of a friend.

Some plants in the curriculum are common plants that followed immigrants and tradespeople here and are found all around us (e.g. Plantain, Cleavers, Dandelion) while other plants (e.g. Camas, Huckleberry, Ironwood) are indigenous to this region and have both deep cultural significance and are at risk of overharvest. For educators in non-tribal communities, this means primarily harvesting the plants that are bountiful in schoolyards and gardens while teaching students the importance of protecting treaty rights and cultural ecosystems in supporting the resilience of Tribal communities. Robin Kimmerer’s 3 minute video on the Honorable Harvest can be found at https://www.youtube.com/watch?v=cEm7gb1ax0o.

Here are some things to consider:

• **Ask Permission:** Acknowledge whose land you are on. Do you have permission to harvest there?

• **Slow Down and Look Around:** How many plants are there? Are they healthy? How many can you harvest while still leaving a strong community? Many foragers take a maximum of 10-20% of the plants in a place. Leave enough for others who rely on the plants for food, like pollinators, birds, and mammals. Sometimes caring for plant communities means not harvesting anything.

• **Leave No Trace:** Clean up and fill in holes so you don’t make a visible impact.

• **What Can You Give Back?** Some people leave a gift, a song, or a prayer as thanks for the gift they have received. Others may pick up garbage or remove invasive plant species.

• **Anticipate Processing Time and How Much You Need:** Sometimes the bulk of the work comes when you get home and process the plants. Will you have time? And how much will you be able to actually use?

• **Celebrate Responsibly:** Only share about your successful harvest (via social media etc.) when you are also able to remind others about proper harvest protocols. Protect places that are shared with you and be mindful of the pressures they might experience if they become too popular.

Harvest Safely

Before harvesting any plant, encourage students to:

• **Make sure you have the right plant!** Teachers should share specific plant characteristics including shape, texture, color, scent, where it tends to grow, etc. Including other names for plants—like yarrow as “squirrel’s tail”—can help students remember important identifying characteristics.

• **Avoid harvesting** from roadsides, railroad corridors, agricultural areas, or other areas that might be contaminated or sprayed with herbicides or pesticides. These chemicals can make us sick.
**LAND ACKNOWLEDGEMENTS**

Land Acknowledgements are public statements that recognize and honor Indigenous peoples as the traditional stewards of this land. These are practices that come from Indigenous people, acknowledging when we are in another tribe’s homeland. Land acknowledgements can be spoken at the beginning of the school week or at the start of larger gatherings or projects. They are meant to:

1) create a broader public awareness of histories that are suppressed or forgotten
2) counter the "doctrine of discovery"
3) begin to repair relationships with Native communities and with the land
4) inspire on-going action.

Students can research the Indigenous peoples of the territory they reside on and consider what actions they can take to support Tribal Sovereignty, current local Tribal issues, and land reparations.

Creating a land acknowledgement can be a gateway into asking important questions like: *Why are we doing a land acknowledgment? What is the history of this land and how does that shape the lives of Native people today? How has colonialism affected the well-being of Native people and the land? What can we do in our classroom/school/community to help heal from the past and not cause more harm? Land acknowledgement is just the first step. Next, take action.*

**HARVESTING IN A TIME OF CLIMATE CHANGE**

As ecosystems are pressured and impacted by climate change, it is important that we respond accordingly by harvesting plants that are plentiful and resilient and working to preserve vulnerable species.

“What are we doing now that is different? How have we adjusted to climate change or land-use change? As a carver, I don’t use half as much cedar as I did 20 years ago. I’m using three times as much alder. Why? Because it’s available, it carves really well when it’s fresh, and it tastes just fine when you smoke with it.”

—Peter Boome (Upper Skagit), carver, artist & educator.
**ADDITIONAL TEACHING PRACTICES**

The following practices operate as throughlines connecting all modules:

- The Art of Noticing
- You Don’t Need to be an Expert
- Learn Together
- Teach and Learn Outside
- The 4 R’s: Relevance, Relationship, Responsibility, and Rigor

**The Art of Noticing**

In this digital age, fewer people have the opportunity to be in nature, simply noticing the wonders of life around them. Engaging our senses and awakening to seasonal rhythms can be both healing and empowering. The *Tend* curriculum invites educators and students to develop critical thinking skills in observing, comparing, contrasting, classifying, and identifying plant attributes. Plant observation, writing, journaling, drawing, and mindfulness activities are woven throughout lessons. Teachers are encouraged to do activities outside or bring plant samples into the classroom so that students can **experience** the knowledge.

**You Don’t Need to be an Expert**

Invest time in your own journey with plants and let your students know that you are a life-long learner. There are multiple ways of knowing plants and land, depending on individual relationships to place and community. Ask questions and add information based on your students’ answers. Use their level of understanding as a foundation to build new knowledge. Invite students and community members to share their ways of learning and knowing. Multiple perspectives within the learning community can shape educator plans and decisions.

**VULNERABILITY**

One of the most important, and perhaps neglected traits of teaching is vulnerability. Understandably, being in front of a class is already a lot of exposure and the thought of shedding more layers can be uncomfortable. However, if you’re willing to be vulnerable at the times where your personal experience and feelings are already stirring up inside of you, then that’s where magic happens. Students start to see you in a different light. Some students can now hear your teachings with new clarity and connection. Most importantly, your vulnerability lets students know that you’re on this journey with them, and that their own courageous vulnerability will help them get the most out of the learning experience.

—Wade Uyeda, GRuB Lead Educator
**Learn Together**

Many *Tend* lessons encourage teachers to break students into small groups. This encourages collaboration, promotes active learning, and builds communication skills. It also promotes equity among students by encouraging them to work together. Each student has a voice. Breaking out into small groups may require more intentional guidance and structure for younger children (see Pairs/Triads/Groups ideas in Facilitation Tools section). If possible, find a teaching assistant, parent, or volunteer who is willing to support you in supervising students so they stay on track.

**Teach and Learn Outside**

When we’re learning about nature, it seems obvious that being in nature would be ideal. And yet, weather, accessibility, convention, and time are all reasons to put it off until next time. Connecting students to nature needs to be more than a mental exercise. Breathing fresh air, feeling rain on one’s face, and hearing the sounds of the forest (even mixed with traffic) are just as valuable, if not more so, as learning the names of plants.

Here are ideas to support your outdoor adventuring:

- Ask guardians and PTA to provide rain gear so students are comfortable and can have a positive learning experience.
- Set expectations and physical boundaries before you venture out. This might mean getting very specific about not going beyond a tree line or a sidewalk.
- Have outside time as the default instead of the special occasion.
- Balance structured outdoor activities with more free-form exploration. Sometimes the most powerful teaching moments happen when an unexpected plant or creature appears. Many youth get so little time outside that simply experiencing the freedom and expansiveness of outdoors can be healing.
- Get dirty! Don’t be afraid to tromp around in the mud and blaze new trails in areas where it is allowed. Sometimes getting off the beaten path and exploring new terrain is the most memorable part of being outside. Encourage students to be safe, but balance that with adventure.
The 4 R’s
When looking to create the most engaging and authentic learning environment for young people, we work to balance the 4 R’s: Relevance, Relationships, Responsibility, and Rigor. (McLaughlin et al in Urban Sanctuaries [1994]).

Relevance: Are the offered activities or projects meaningful to young people and their communities? Why are we learning this content? How does this content relate to our immediate community? How does it relate to your own life? To weave more relevance into your project and/or teaching:

- Encourage students to explore the curriculum’s relevance to their own lives. Explore real-life, sometimes controversial issues.
- Learn about local issues around food access, nutrition, and tribal sovereignty. Support students in exploring their own food cultures.
- Seize teachable moments by responding to the relevance of a single moment, when a passing butterfly or a recent news event creates an opportunity for related learning.

Relationships: Is the learning environment creating a safe, inclusive space where young people can form strong bonds with their teacher and each other? To strengthen relationships:

- Integrate time and activities that allow students to share with each other and learn each other’s names.
- Recognize that students’ ability to learn is strengthened if their basic needs for human connection and love are being met.
- Be vulnerable, transform yourself, be a learner, and share your journey.

Responsibility: What are opportunities for youth to take on real-world projects and/or roles? When integrating Tend into a school or classroom, consider what kinds of roles and responsibilities students can lead. Depending on age, students can lead check-in, gather needed supplies, evaluate the activity, and give feedback. Working together and giving back to the community is a powerful tool for learning and empowering students. Teachers can provide opportunities for students to:

- Tend a wild food garden.
- Teach younger students what they’re learning.
- Create and sell value-added items to raise money for a meaningful cause.
- Build and maintain a wild food and medicine nature trail.
- Support tribal sovereignty efforts through policy, activism, and/or fundraising.

Rigor: Are students invited to engage in meaningful, challenging work requiring dedication and sustained effort? In the context of the Tend curriculum, rigor might look like going outside on a cold, rainy day, working hard to plant and maintain a garden, doing a community service project, making products for a fundraiser, or teaching younger students what they have learned.
FACILITATION TOOLS FOR ENGAGEMENT

In our experience, there are more curricular resources that cover content (the "What?") than process (the “How?”). When teachers and others come to GRuB to observe our program or attend a training, they often remark that something feels different, something that isn’t immediately obvious or tangible. The difference is in “how” we connect with youth, not so much “what” we teach.

Community Guidelines

One ingredient to fostering a safe learning environment is creating a community contract where we spell out our expectations of each other. The extent of a community contract might be less for a day-long class than for a year-long cohort. Areas to cover could include: personal safety, mutual respect, communication, relationships, and participation. Incorporating personal and group reflection time on the community guidelines will keep them relevant and useful. Examples of guidelines include:

- **Try it On**: This is an invitation to be open-minded to others’ ideas, feelings, worldviews, and ways of doing things so that greater exploration and understanding are possible. The invitation also includes feeling free to take things that “fit” and to leave or file away things that don’t.

- **Both/And Thinking**: This type of thinking invites us to see that more than one reality or perspective can be true at the same time rather than seeing reality as strictly either/or, right or wrong, good or bad, this or that. Using “both/and thinking” can be very helpful in reconciling differences and conflicts that do not present easy solutions.

- **Don’t Yuck My Yum**: Invite students to hold their immediate negative impressions of any activity or taste to themselves so as not to taint the experience for everyone around them. Welcome more specific adjectives than “good” or “bad.”

- **Move Up/Move Up**: If you are someone who doesn’t usually engage in discussions, challenge yourself to “move up” and make an effort to share your perspective more than you currently do. If you are someone who usually contributes a lot in conversations, “move up” and practice your listening skills.

- **Five Finger Contract**: A simpler contract for short-term engagements. (1) Pinky = safety (physical & emotional), (2) Ring finger = commitment (to the task at hand and group goals), (3) Middle finger = respect (for each other and the land), (4) Index finger = accountability (we take responsibility for our own actions), and (5) Thumb = fun.

*The first two guidelines are from VISIONS Eight (8) Guiding Principles for Successful Outcomes Across Cultural Differences. (For more information or for training in the VISIONS, Inc. Model of Multicultural Change, please contact VISIONS Inc., [www.visions-inc.org](http://www.visions-inc.org).)
Circles
As often as possible, we arrange learners in a circle formation where everyone can see every other person in the group. This arrangement allows the teacher to quickly scan the group and assess students’ individual comfort level and energy as well as overall group dynamics. Circles also create more opportunity for inclusion and group synergy in learning. Requesting a “real” circle is one way to invite learners to be more fully present in the moment and to promote more group accountability.

Openings: Check Ins
We begin most gatherings with a circle and check-in. Check-ins are meant to be a pause before we dive into content. They are an opportunity for each student to bring their voice and energy into the circle. Check-ins ideally include a chance for students to name their mood in some way as well as to share something about themselves that helps the group deepen their connections. Check-in circles also mark the opening of our learning time together and bring some ritual and even sacredness to our shared time. Having students lead check-ins is a great opportunity for building leadership and public speaking skills.

Example Check-in Questions
- What is your superpower? Or, if you can have a superpower what would it be?
- Who made it possible for you to be here today?
- If your mood was a season/plant/ecosystem/weather system today, what would it be and why?
- What is something you appreciate about spring/summer/fall/winter?
- What’s a special place in nature for you?
- Describe a moment where you felt connected to your culture?
- Give us a stretch and tell us how you are doing physically and emotionally today.
- What is something you appreciate about the person standing to your right?
- What is something you’ve been complimented for?
- PIERS for longer, deeper check-ins – How are you doing Physically, Intellectually, Emotionally, Spiritually?

Icebreakers
Studies show that people learn better and faster when they are playing and laughing. Play is one of the quickest ways to get folks to rip up their ‘cool card’–the attitude of distance and inauthenticity we use to protect ourselves. Play can be challenging for grown-ups and kids who are feeling nervous, insecure, or stressed. Because of this, it is important that individuals have choices about how they engage in games and activities. We can require that students participate in activities as long as there are more options for participation as the risk (physical, emotional) involved in the activity increases. Options for participation may include actively observing and reporting observations, cheering from the sideline, listening only (for active talkers), and taking the role of timekeeper or vibe-checker.
Closings and Debriefs
Closings help mark the end of our learning time together. This is where we once again hear each voice, reflect on our learning, and honor the time we’ve spent together. Debriefs can be another powerful tool for closing a space. Ask the group to reflect and process what came up by asking guiding questions. Try to get the group to reflect on (1) what happened, (2) why it was important or what the impact was, and (3) what the next steps are for the group (or individuals) based on what came up. Examples of closings include:

- **Rock, Stick, Leaf:** Ask students to reflect on “what *rocked* about today?; what's going to *stick* with you?; and what's something you want to ‘*leaf*’ behind?” (Option: pass around an actual rock, stick, and leaf.)
- **Gratitude and Regrets:** Students name something they appreciated about the day or someone else (gratitude) and one thing they wish they had done differently (regret).
- **Give Back:** Ask each student to “teach” the guest teacher one thing they learned.
- **Highlights:** Go around the group and invite each person to share a highlight of the day or activity. These can be short, one word highlights, or you can do something longer and more open-ended.

OTHER FACILITATION TIPS

**Mix it Up!**
People have short attention spans, and this is especially true for young learners. *Tend* lessons are staggered with active and passive learning to help students stay engaged. If you lose students’ attention, try another type of activity like storytelling, art, a physical game, or time for small group reflection.

**Utilize Beans**
This tool regulates the frequency of each individual’s contributions. You can give each person a few beans and each time they talk, the teacher takes a bean from the person who spoke. This is the physical representation of the guideline “move up/move up.” Once someone has used all of their beans, they can’t speak again. Another option is to use a talking piece so that students take turns sharing with the group.

**Getting Attention**
Try agreeing on a clapping pattern or some other noise to let the group know that someone is trying to speak. Once one person claps or makes the noise, then others in the group can echo that until the group’s attention is focused on the person trying to speak. For example, we may use the term “one mic” for one microphone so that students do not talk over each other.

Another attention getting strategy is to say, “If you can hear me…” followed by an act. For example, say to the group, “If you can hear me, touch your ear…If you can hear me, stand on one foot…” Do this until you have the group’s attention. You can use the technique of saying it loudly to try to get everyone to hear you immediately, or you can keep your voice soft and wait as a ripple of silence extends from where you are.

**Pairs/Triads/Small Groups**
Large group conversations can be intimidating. It is helpful to give students time to do their own thinking first either in silence or in writing. Next you can invite people to share in pairs to warm up their ideas and voices for a larger conversation. Depending on the intended outcome for the session, sometimes reflection in pairs or small groups is all that is needed for active learning.
• **Think, Pair, Share:** Allow each learner time (1–3 minutes) to think/write by themselves. Writing often helps people collect their thoughts. Then ask folks to find a partner and share their thinking one at a time. Then, back together as a whole group, ask if there are folks who want to share what they learned from their partner or what new ideas arose from their conversation.

• **Jigsaw or Expert Groups:** This facilitation tool is helpful when there is lots of content to learn. Form a number of equal-sized teams needed to cover content (1 team per major concept). Each team convenes and learns content together, becoming 'experts'. Then one delegate from each team meets with delegates from each other team. Each delegate now teaches their new group members about their concept. (Option: delegates could move in pairs so that they have support in teaching others.) Handing out papers/nametags ahead of time which indicate what learning team and teaching group students will rotate to is extremely helpful in this activity.

• **Counting Off Creatively:** Instead of asking students to count off 1,2,3,1,2,3 to form three groups, try using plant names or other new vocabulary (i.e. plantain, dandelion, salmonberry) to create 3 groups that now have a name and identity.
Our Gratitude

We would like to thank our Elders and plant teachers who have generously shared knowledge and stories, including Bruce Miller and Kimberly Miller (Skokomish), Rudy Ryser (Cowlitz), Roger Fernandes (Lower Elwha S’Klallam), June O’Brien (Nansemond), Elaine Grinnell ( Jamestown S’Klallam), Hank Gobin and Inez Bill (Tulalip), Vi Hilbert (Upper Skagit), Earnestine Genshaw (Lummi), Allen Frazier (Yurok), Theresa Parker (Makah), Warren King-George (Muckleshoot), Mary Hayes and John and Linda Elliott (Tsartlip), Joyce Netishen, Michael Moore, Cascade Anderson Geller, Nancy Turner, Abe Lloyd, Fiona Devereau, Heidi Bohan, Jennifer Hahn, Krista Olson, and many others! And we thank the plants for their generosity, medicine, and teachings.

Partners & Funders

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Editing Team

We would like to acknowledge our editing team members who have donated hundreds of hours of meticulous grammatical and structural edits, as well as content research to this project.

Clare Follmann is an author, editor, artist, bibliophile, herbalist, tea-leaf reader, and gardener located in Olympia, Washington. She has a Master’s degree in Environmental Studies from The Evergreen State College, and a B.A. in Philosophy and Literature from Sarah Lawrence College.

Michi Thacker was an elementary school educator in Olympia, WA, for many years before teaching in the Masters in Teaching program at The Evergreen State College. Michi has been involved with the development of the Since Time Immemorial Curriculum as a listener, advisor, teacher-trainer, and writer.

Fae Scherling brings her background in communication and design to ecology and stewardship programs that focus on building community through creating educational resources and opportunities. She is an artist, herbalist, and avid explorer with a deep love of learning.

Crescent Champoeg is drawn to the intersections of art and the environment around her. She holds a Master’s degree in Environmental Horticulture from University of Washington, and is an undergraduate double-major in Environmental Studies and Art.

Shawna Zierdt (Cow Creek Band of Umpqua, Nahankoutana) is an advocate to safe access to traditional gathering practices, and is a land care practitioner and community collaborator.

T. Abe Lloyd is an adjunct professor at Western Washington University and the owner of Salal, the Cascadian Food Institute. In addition to editing Tend, Gather and Grow, Abe is a major contributor to the Tend Plant Technologies Module.
**Curriculum Reviewers**

The curriculum has been reviewed for accuracy, ethical harvesting practices, and culturally-appropriate content by members of the Tend team (see below) as well as tribal cohort members including Davina Barril (Tlingit), Leslie LaFountaine (Turtle Mountain Chippewa), Tina Jackson (Suquamish), Azure Boure (Suquamish), and Myk Heidt. Tend is currently being reviewed by an expert advisory council supported through a National Science Foundation grant including Nora Frank-Buckner (Nez Perce/Klamath), Will Bill Jr. (Muckleshoot), Alice Tsoodle (Kiowa), Nancy Maryboy (Cherokee/Navajo), Harriet Kuhnlein, Michael Vendiola (Swinomish), Shawn Rowe, Jamie Donatuto, and Diana Rohlman.

Katie Vincent (Bastyr Botanical Garden Supervisor) and Dr. Sheila Kingsbury (former chair of Botanical Medicine department) reviewed the Herbal Apothecary Module.

**ABOUT THE TEND, GATHER & GROW TEAM**

Team members represent a cumulative 90 years experience working in tribal communities and a diversity of skills in plant knowledge, cultural resilience, holistic nutrition and wellness, innovative teaching techniques, education policy, youth advocacy, tribal food sovereignty, community programming, Indigenous research, evaluation, media outreach, and graphic design.

**Elise Krohn, M.Ed.** is a GRuB educator, author, herbalist, and native foods specialist in the Pacific Northwest. For 15+ years, she has worked with elders and cultural specialists in tribal communities to create successful community gardens, food sovereignty resources, a program on healing addiction, and curricula on chronic disease prevention. Elise has 10+ years of experience as a clinical herbalist, and has authored two books and numerous articles on this and related topics. Elise is a Fellow in Ethnobotany and Ethnonutrition at the Center for World Indigenous Studies. Her blog can be found at www.wildfoodsandmedicines.com.

**Mariana Harvey** (Yakama) holds a BA in American Indian Studies. She has spent the last seven years working to promote culturally based leadership initiatives for Native youth within the northwest and nationally through her work with the Native Youth Leadership Alliance and the Affiliated Tribes of Northwest Indians Youth. Mariana co-led Native student buffalo harvests at her college in Colorado which sparked her journey into Tribal Food Sovereignty. She is on the Tend development team and has contributed as an editor, piloted lessons, and taught tribal and community workshops. Mariana is GRuB’s Wild Foods and Medicines Program Coordinator.

**Elizabeth Campbell** (Spokane) is a Native Plants Educator and herbalist who grew up harvesting native foods with her family. She has taught at Northwest Indian Treatment Center’s Traditional Plants Program and tribal community classes and train-the-trainers workshops across Washington State since 2009. Elizabeth holds a Bachelor of Arts degree in Education from The Evergreen State College with special emphasis on the Practice of Sustainable Agriculture and Native American Studies. She runs an organic farm with her family in Shelton, Washington, and continues to work towards the cultural revitalization of traditional foods and medicines.

**Charlene Koutchak** (Inupiaq/Scandinavian) has a lifelong connection with food and wild plants that started while growing up in Alaska and continues today as a Registered Dietitian and Herbalist. As an educator on the Tend team she brings a playful curiosity that helps her students develop a lifelong love of learning about and gratitude for plant communities and the lands we call home. Charlene works for the Puyallup Tribal Health Authority and you can learn more about her work at www.fireweednutrition.com.
Charlie Sittingbull is a middle school biology and chemistry teacher and science department lead with North Thurston Public Schools. Charlie holds a Master’s in Science Education from the University of Washington and certificates in Restoration Ecology, and Education, Environment, and Community. She earned her Washington State teaching certificate from Saint Martin’s University in Secondary Science and Secondary Humanities. She continues to work with local tribal members to integrate Indigenous Knowledge Systems with Science Education.

Annie Brulé is a visual storyteller whose work combines illustration, design, plants, and culture. She holds a BS in Fine Art, with studies in Anthropology and Environmental Science. Her contributions to the Tend curriculum include graphic design, editing, and exercises in The Art of Noticing. She loves cultivating human-nature connection as an art teacher with teens and adults. She also co-founded Chatwin Books, a small publishing company in Seattle. Find Annie at www.bruleillustration.com.

Dr. Joyce LeCompte Mastenbrook earned her doctorate in environmental anthropology from the University of Washington in 2015. Her dissertation research focused on the deep history and contemporary politics of mountain huckleberry stewardship in Puget Sound Coast Salish territory. Joyce teaches college level courses in ethnobotany, ethnoecology, and environmental anthropology, and is also deeply committed to community based teaching and writing. Her current research is examining the terrestrial cultural ecosystems of the Salish Sea.

Kim Gaffi is co-founder of GRuB, a community-based non-profit in Olympia, WA. She has a B.S. in Environmental Studies and B.A. in Community Development and 25+ years experience in youth development and environmental education. She believes that group facilitation and popular education are powerful tools in creating meaningful personal and social change.

Tamar Krames works at the Washington State Arts Commission as the Arts in Education Program Manager. As a National Board Certified educator and a practicing artist, inspiring courageous teaching has been at the core of her work for the past twenty years. Tamar works with educators, artists, and community members to dismantle inequitable practices in schools and to amplify the creative brilliance of youth.

Valerie Segrest (Muckleshoot) holds a B.A. in Human Nutrition and Health Sciences from Bastyr University and a M.A. in Environment and Community from Antioch University. She has certifications in advanced herbal studies and has extensively researched the subject of traditional food and medicine systems of the Coast Salish tribes of Western Washington. Segrest has co-authored several publications including the book “Feeding the People, Feeding the Spirit: Revitalizing Northwest Coastal Indian Food Culture.” Segrest is currently Native American Agriculture Fund’s Regional Director for Native Food and Knowledge Systems.

Aleta Poste (Squaxin Island) has dedicated herself to seek the traditional knowledge and cultural values of her people in relation to food and medicine. Bringing this knowledge to the youth has been her passion. Aleta has continued her education through the Wild Roots Apprenticeship and Sustainable Small Scale Food Production classes. She led a grassroots community effort to restore camas, which helped build interest in traditional foods throughout her community. She serves as Squaxin Island Tribe’s Community Garden Program Manager.

Brett Ramey (Iowa Tribe of Kansas and Nebraska) is an educator and organizer working at the intersections of environmental, cultural, and community health. He brings 15+ years experience in designing land-based learning environments in urban and reservation-based Indigenous communities to the Tend team.
Dr. Rose James (Lummi) is owner/operator of Cedar Rose Consulting. She has taught biomedical research ethics to undergraduates at University of Washington for five years. Her work focuses on ethics of conducting research on the health and resiliency of tribal and urban Indian communities. She is currently collaborating with local Washington tribal groups to plan and implement community driven projects around sustaining traditional indigenous food systems and healthy diet interventions.

Janna Lafferty is a social science and writing educator currently working in Los Angeles/Tongva land. She holds a Ph.D. in Global & Sociocultural Studies, and her dissertation examined food sovereignty under U.S. settler colonialism. Janna worked as the lead volunteer on a Community Alliance for Global Justice campaign in partnership with the Muckleshoot Food Sovereignty Project to stop genetically engineered salmon. Janna continues to look for ways to link education with decolonizing environmentalism.

Cinnamon Bear (Karuk) is an educator and traditional medicine herbalist who works for Hancock Forest Management developing and implementing traditional ecological knowledge (TEK) and forestry education for the Muckleshoot tribal community. She has served as a tribal liaison for the Washington ClimeTime Project and has worked with Muckleshoot Culture and Elders programs to provide traditional medicines and teach community classes. Cinnamon has taught both elementary and high school.

Several members of the Tend, Gather and Grow team in 2016.
REFERENCES & ADDITIONAL RESOURCES

Wild Foods & Medicine

- GRuB Free Downloadable Resources: www.goodgrub.org/wild-foods/wild-foods-medicine-resources
- Wild Foods & Medicine Resource Guide: A brief review of our favorite books, websites, courses, and groups for Western Washington. https://assets.website-files.com/5a0ca7f60d22aa0001465873/5d0a9daa7ff657620a22efc6_Wild%20Food%20%20%26%20Herbal%20Resources.pdf
- Wild Foods and Medicines website: http://wildfoodsandmedicines.com/

Northwest Tribes

- Since Time Immemorial Curriculum: Since Time Immemorial: Tribal Sovereignty in Washington State is “a ground-breaking curriculum initiative made possible through federal, state, and tribal funding. This project seeks to build lasting educational partnerships between school districts and their local tribes via elementary, middle, and high school curriculum on tribal sovereignty.” https://www.k12.wa.us/sites/default/files/public/indianed/tribalsovereignty/training/guidingprinciples10-2015.pdf
- Native Knowledge 360°: National Museum of the American Indian educational, interactive website with lessons, videos, interviews, and activities: https://americanindian.si.edu/nk360/resources.csh.html
- Affiliated Tribes of Northwest Indians: https://atnitribes.org/
- Confluenceproject.org: A nonprofit that works connecting people to the history, living cultures, and ecology of the Columbia River system through Indigenous voices.

Cultural Humility:

- “Cultural Humility: People, Principles and Practices,” is a 30-minute documentary by San Francisco State professor Vivian Chávez, that mixes poetry with music, interviews, archival footage, and images of community, nature and dance to explain what Cultural Humility is and why we need it: https://www.youtube.com/watch?v=SaSHLb51V4w

Cultural Property Rights

- Guidelines for Respecting Cultural Knowledge: http://ankn.uaf.edu/Publications/Knowledge.pdf
Tribal Sovereignty


- **Confluenceproject.org**: A nonprofit that works connecting people to the history, living cultures, and ecology of the Columbia River system through Indigenous voices.

Land Acknowledgements:


- **Honor Native Land: A Guide and Call to Acknowledgement**: Download U.S. Department of Arts & Culture: [https://usdac.us/nativeland](https://usdac.us/nativeland)

Facilitation, Games, and Team-building:

- **GRuB’s Youth Connection Toolkit**: See the GRuB free downloadable resources page. [https://www.goodgrub.org/wild-foods/wild-foods-medicine-resources](https://www.goodgrub.org/wild-foods/wild-foods-medicine-resources)

- **Growing Together: A Guide for Building Inspired, Diverse and Productive Youth Communities**, by Greg Gale


- **Journey Toward the Caring Classroom: Using Adventure to Create Community in the Classroom**, by Laurie S. Frank.


- **Ultimate Camp Resource**: online treasure trove of games and activities. [www.ultimatecampresource.com](http://www.ultimatecampresource.com)

- **Learning in Places Project**: [http://learninginplaces.org](http://learninginplaces.org)