



Co-designing Places for Outdoor Learning Facilitation Guide

Design engagements for families, students, teachers, and communities to reimagine schoolyards





The **Co-designing Places for Outdoor Learning Facilitation Guide** creates a process by which people can co-design outdoor places for field-based science learning on schools grounds. It is only one piece of a much larger ecosystem of materials that are part of the Learning in Places project. More information about the project and all of the materials can be accessed for free on the Learning in Places website: learninginplaces.org

The Learning in Places Project cultivates equitable, culturally based, socio-ecological systems learning using a new approach to field based science education. A shift in designing outdoor learning places is also necessary to create equitable and sustainable learning opportunities which is reflected in this Facilitation Guide.

We are grateful for the staff and families from Viewlands Elementary and Dearborn Park International Elementary who co-designed and implemented the first iteration of the Design Engagements. Thank you to all our Community-Based Organization partners: Muckleshoot Tribe, Washington Green Schools, EarthCorps, Readers to Eaters, Slow Food Seattle, Creative Kids, Seattle Parks and Recreation Urban Food Systems Program, IslandWood, Nurturing Roots, Seattle Public Schools Self Help Projects, and school garden coordinators. A special thank you to Maren Neldam for her vision and creative leadership on the Facilitation Guide.

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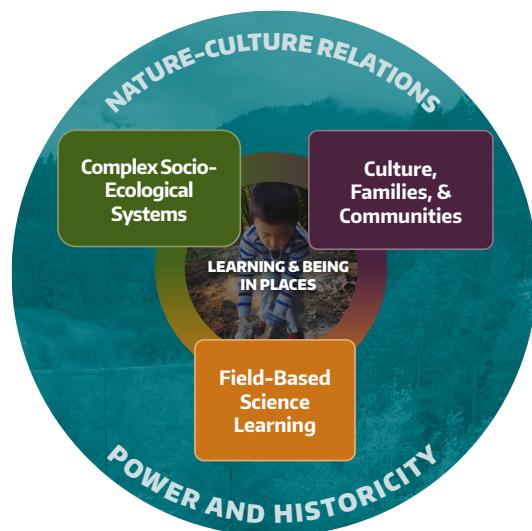
In the Learning in Places project, we co-design innovative research and practice with educators, families, and community partners that cultivate equitable, culturally based, socio-ecological systems learning and sustainable decision-making utilizing “field based” science education in outdoor places, including gardens, for children in Pre-Kindergarten to 3rd grade and their families.

Materials in the Learning in Places Ecosystem

The **Rhizome** (further explained on page 6) illustrates the key principles and commitments of the project. There are 25 corresponding **frameworks** that provide in-depth, research-based information on the various aspects of the Rhizome. These frameworks are designed for educators working in a variety of places (Community-Based Organizations of all types, homes and schools.)

Out of the Rhizome and frameworks emerge overarching activity systems called **storylines**. The storylines operationalize principles from the Rhizome and provide a sequence for the **Learning Engagements** (LEs). These LEs engage learners and their communities in progressions of field-based science-related activities, including wondering, questioning, observing, investigating, deliberating, and decision-making. Each Learning Engagement contains various tools designed for educators and families as this learning is intentionally meant to cross boundaries between home, communities and schools.

While Learning in Places can happen in any outdoor space, it can also take place in intentionally designed **places for outdoor learning**, like a garden or outdoor classroom (defined on page 4).



Learning in Places Rhizome



Learning in Places Material Ecosystem



Co-designing Places for Outdoor Learning Facilitation Guide

Introduction to the Facilitation Guide and Design Engagements

Introduction

The Co-designing Places for Outdoor Learning Facilitation Guide is composed of several Design Engagements (DE). The DEs guide groups of families, teachers, Community-Based Organizations and community members in collaborative visioning and decision making, called **co-design**. When outdoor learning places at school are co-designed using multiple cultural and value systems they provide more **equitable** and **sustainable** learning opportunities.

When using the Rhizome as a lens (see page 6), outdoor learning places can be locations for rigorous, relevant, equitable and critical science learning that is woven into the larger community. These places need to be designed to be welcoming to all learners and their families, while supporting healthy ecosystems. Each Design Engagement intentionally includes the Rhizome to elevate different perspectives towards creating more equitable outdoor learning places.

The long-term sustainability of outdoor learning places at schools often hinges upon the continual reflection and revision of the values of the outdoor learning place as school interests and focuses change, and when leadership transitions. Conversations around decision-making and roles are critical to long-term sustainability. Designing with the unique affordances and challenges of particular sites is another crucial component. Activities from this guide should be revisited regularly to keep the space relevant and to continue to invite multiple perspectives speaking to the sustainability and use of the designed space.



Why say “places for outdoor learning” instead of “garden”?

Many of the partners and schools involved with the Learning in Places project have worked and taught outdoors in gardens, most often annual vegetable gardens – or food-for-human gardens. While many of us continue to work in annual vegetable gardens, we also work in many other kinds of gardens and outdoor spaces such as rain gardens, native gardens, permaculture gardens, restoration spaces, wetlands, parks, and more. To make sure we are thinking expansively about outdoor places, we are using “places for outdoor learning” instead of “gardens” throughout this and other documents. An expansive view of outdoor learning places makes visible design opportunities that can happen in a variety of school yard environments including those that have limited green space.

Design Engagements:

This guide is made up of eight different Design Engagements (DEs) that will inform collective decision making for the design of a new outdoor learning site or the enhancement of an existing site. The activities are listed in this order as they support the development of the corresponding activities.

- 1. Histories of Places:** think across multiple time scales to consider how the school yard came to be the way it is today and what it could be in the future
- 2. Vision and Values Discussion:** set a direction for the outdoor learning place
- 3. Place Mapping:** identify the features of the land that support learning
- 4. Rhizome Mapping:** re-walk the school grounds together and use the Rhizome as a "lens" to think critically about the places you identified in the place mapping activity
- 5. Site Selection Synthesis:** reflect on the previous activities to identify a site for outdoor learning
- 6. Designing Your Site:** create a design for the site and share out with the wider community
- 7. Planning for Installation:** finalize your design plan and prepare for installation
- 8. Sustainability, Decision-Making and Governance:** consider how decisions will continue to be made and create a common agreement to support sustainability of the outdoor learning place

Components of this Guide:

Each Design Engagement has a three-page **Facilitation Guide**.

- Page 1:** provides an overview and purpose of the activity
- Page 2:** the Rhizome helps prompt co-designers to keep multiple perspectives in mind when making decisions. It also lists connections to Learning Engagements (LEs) from the Learning in Places classroom science storyline and the family science storyline. These materials can be found at learninginplaces.org
- Page 3:** provides suggestions for how to use the activity sheets in a co-design session.

Each **activity sheet** provides prompts for the co-design team to consider. The team can write down noticing, wonderings, questions and reflections as they move through different activities. These activity sheets can also be copied onto a blank piece of paper or into a bounded notebook.

There are various **appendices** that are referenced throughout the Facilitation Guide that offer additional supports for specific considerations. They are compiled at the end of the guide.

Since **sustainability** is such a critical issue for the long term success of the outdoor learning place, the **Histories of Places** (DE 1) and **Vision and Values Discussion** (DE 2) are essential to complete with the co-design group. If these activities are not completed, different assumptions might be made by different members of your group related to the use and purpose of the outdoor learning place that can lead to misunderstandings and conflicts.

The image shows two pages of the Facilitation Guide and two activity sheets for Design Engagements 1 and 2.

Facilitation Guide PAGE 1: This page contains the title "Co-designing Places for Outdoor Learning Facilitation Guide", the "Activity Overview", and the "Key Terms". It also includes the "Using the Rhizome in the Co-design Process" section, which describes the Rhizome as a "lens" for examining the school grounds. Below this is the "Gather, Familiarize, and Connect" section, which outlines the process of preparing for the engagement, connecting with the community, and gathering information. At the bottom are the "Core Goals" and "Learning Objectives".

Activity Sheet 1: Histories of Places Walk PAGE 2: This sheet is titled "Activity 1: Overview Histories of Places". It includes a "Key Terms" section, a "Using the Rhizome in the Co-design Process" section, and a "Gather, Familiarize, and Connect" section. It also features a "Rhizome Grid" with columns for "NATURE-CULTURE RELATIONSHIPS", "POWER AND PLACE RELATIONSHIPS", and "CULTURAL PRACTICES".

Activity Sheet 2: Histories of Places Walk PAGE 2: This sheet is titled "Activity 2: Histories of Places Walk". It includes sections for "MATERIALS", "TIME: 30 MINUTES", and "ACTIVITY SHEET LB". It provides a template for listing observations and questions from the walk.

RHIZOME PROMPTS PAGE 2: This sheet is titled "Activity 3: Visual, Visual, and Visual". It includes a "Rhizome Grid" and a "Rhizome Prompts" section with questions related to power and place relationships.

ACTIVITY SHEET: This sheet is titled "Activity 4: Using Histories of Places to explore the place over time and space". It includes sections for "Place History", "Gathering Them: Land and Community Information", "Place Around and Beyond: Past Projects, Current Initiatives, and Future Relationships", and "Nature-Made Them: How the environment of the place has shaped and impacted this place".

CO-DESIGN SESSION GUIDE: This sheet is titled "Facilitation considerations" and "Facilitation considerations". It provides guidance for addressing power dynamics and ensuring multiple perspectives are considered.

Setting up a co-design space:

This facilitation guide should be completed as a co-design group, not individually. Co-designing is an important way to shift who has decision-making power. Co-designing is an iterative process where ideas are formed, shared, and re-designed several times with many groups of people who will be involved in the learning environment. This includes educators, families, students and community-based organizations. Allow plenty of time for trust and relationships to be built, and remember this takes time and intentional effort.

The co-design process will take time and will evolve. There will be times when smaller groups of folks work closely together. There will be times when co-design happens in larger one-time sessions. Co-design is a continual relational process where we are shifting the ways we interact with each other in an effort to move towards a collective vision.

Preparing for co-design sessions:

Identify and invite stakeholders (see “Who should be involved?”) Inviting stakeholders will range from individually targeted asks, to broad outreach through sending fliers home in backpacks, newsletters, or e-mails.

Schedule a series of meetings at times that work for the co-design team. To get a sense of how long the design engagements take and how they may be grouped for meetings, please see an example timeline in Appendix A.

During your first session prepare for an **introduction time** where the co-design team can get to know each other. Building relationships is an important part of co-design. Share names and roles you hold in the community as well as an ice breaker activity of your choosing. This can be as simple as asking people “How do you know it’s fall?” “What does your family like to learn outside in this season?”

Who should be involved?

Outdoor learning spaces, like gardens of any kind, take coordination. Depending on the activities and the space being used, the needs can vary greatly. There is always some level of decision making occurring, ranging from who will use the space to how to care for the space being used.

When forming a co-design committee, think about who is involved in decision making and what implications that may have.

- Families who represent different racial, ethnic and cultural groups
- Teachers, principal, district staff, para-educators, custodians, cafeteria manager
- Community members, partners and Community-Based Organizations (CBOs)
- Students
- Outdoor learning place coordinator and/or outdoor educator

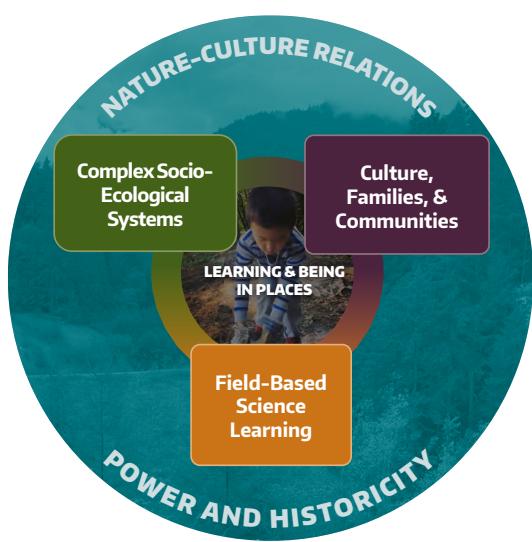
Important Considerations:

- Who is involved in decision making around the outdoor learning place?
- How are they involved in the co-design process?
- Are the people who will be caring for and educating in the site after installation involved in the design process?
- Are there people who should be involved who you haven’t thought of and/or who aren’t usually asked to participate?



Learning in Places Rhizome:

In the Learning in Places project, we call our core commitments, stances, and ideas the “Rhizome.” A rhizome is an underground plant stem system that produces both new roots and new shoots for the plant. In other words, it is the foundation from which the plant makes new growth. We use the Rhizome as a metaphor for the foundation of our work, in which our core commitments and key concepts propagate through teaching and learning, and from where we cultivate new ideas and practices. The Rhizome foregrounds analyses of power and historicity and nature-culture relations as they interact with complex socio-ecological systems, culture, families & communities, and field-based science. In the Facilitator Guides, the Rhizome page will provide prompts to routinely consider how these concepts are connected to the outdoor learning places design process. The Rhizome is intentionally included in every activity, to elevate different perspectives towards creating more equitable outdoor learning places (for example, beyond just identifying the sunniest spot on the school grounds).



Field-Based Science Learning:

The Next Generation Science Standards represents a shift beyond studying concepts, towards engaging in scientific practices and deep sense-making. When students engage in the practices of scientific inquiry, they develop understandings of scientific ideas as well as the processes through which scientists learn about the natural world. Outdoor learning places provide a place for learners to engage in these scientific practices and ideas.

Complex Socio-Ecological Systems:

All social and ecological systems interact in a complex web of relations across time and place. These are referred to as socio-ecological systems. Understanding complex socio-ecological systems is increasingly important in a world that is socially and ecologically shifting at rapid rates. The outdoor learning place should be a place to reason about systems and patterns and should reveal interdependent relationships in and across places.

Culture, Families and Community:

Culture is constituted by the ways in which human beings engage with and make sense of the world as we participate in everyday activities of our communities. Thus, culture reflects socially and historically organized ways of living and making sense of life. Families bring a wealth of diverse perspectives and experiences that inform their relation to places and are crucial to creating equitable learning spaces. However, without careful facilitation traditionally powered roles and relationships can easily get re-enacted.

Power and Historicity:

While history is often viewed as a series of “facts”, **historicity** recognizes how people’s perspectives and positions have shaped their understanding of history and visions of possible futures. Historicity is inherently **powered** – in other words, systemic power dynamics shape the structure relations between and among individuals, communities, and institutions (involving humans and more-than-humans). Creating equitable outdoor learning places means there must be a recognition of the power and historicity present in these places to reconstruct a more equitable and ethical future.

Nature-Culture Relations:

The natural world makes human life possible. The ways that humans understand, interact with, and make decisions about the natural world has varied across cultural communities, as well as over history. The decisions around how to build outdoor learning spaces are shaped by culturally constructed conceptions of human relations with the natural world - what we refer to as nature-culture relations.

Glossary

Consider printing this page and making it available during co-design sessions.

CBOs: Community-Based Organizations are nonprofit groups that work at the community level.

Co-design: co-design is a process of bringing people with diverse perspectives and roles together, to collectively identify areas of inquiry and to design solutions. Co-design is not a focus group or listening session. Rather, this process positions families and communities as collective decision makers.

Colonialism: the processes of a country or group of people seeking to extend or retain its authority over other people or territories, generally with the aim of economic and cultural dominance, often manifesting in espoused racialized supremacies. In the process of colonization, colonizers may impose their religion, economics, and other cultural practices on the peoples Indigenous to targeted territory, often done in very violent ways. The foreign administrators rule the territory in pursuit of their interests, seeking to benefit from the colonized region's people and resources.

Historicity: while history is often viewed as a series of "facts," historicity recognizes how people's perspectives and positions have shaped their understanding of history and vision of possible futures. Historicity is inherently powered – in other words, systemic power dynamics shape the structured relations between and among individuals, communities and institutions (involving humans and more-than-humans.)

Kinds: refers to water, sunlight, wind/air, soil, rocks.

Makerspace: this term refers to a hands-on space used to creatively design solutions. In DE 6 setting up a makerspace could include gathering things like cardboard, branches, burlap, etc. with the focus on building a model of the outdoor learning place design.

More-than-human: includes animals, plants, fungi, and microorganisms. This term intentionally replaces "non-human" as a way to decenter human dominance in the natural world.

Nature-Culture: refers to human relationships in and with the natural world. The two predominant models of nature-culture relations are (1) humans "apart from" the natural world (2) humans are "a part of" the natural world. Learning in Places is cultivating learning environments in which humans are a part of the natural world.

Phenomenon: an observable event that happens in the world (example: a plant growing towards the sun, soil eroding out of a garden bed, a caterpillar eating a leaf).

Rhizome: is an underground plant stem system that produces both new roots and new shoots for the plant. In other words, it is the foundation from which the plant makes new growth. The Learning in Places project uses the Rhizome as a metaphor for the foundation of our work, in which our core commitments and key concepts propagate through teaching and learning, and from where we cultivate new ideas and practices (see pg 5).

Socio-Ecological Systems: is the interaction of social systems (e.g. cultural communities, economies, governments) and ecological systems (e.g. forests, gardens) across time and place.

Time Scales: there are multiple time scales that shape a place. This project names six different time scales. You may have other names for these timescales but what is important is to consider how these scales interact and are layered. These layered histories continue to shape the present and are critical in order to create ethical, just and sustainable futures.

Values: what we hold to be important as a community

Vision: an overarching plan for the future, an overall intent of use or purpose

Ways of Knowing: everyone comes to learning environments with their own ways of knowing, influenced by cultural and family practices, language and histories. It is important to create learning environments that invite multiple ways of knowing.



Co-designing Places for Outdoor Learning Facilitation Guide

Design Engagement 1: Histories of Places

Activity Purpose

The goal of Histories of Places is to use different time scales to consider how the school yard came to be the way it is today, and what it could be in the future. Histories span across land, plants, animals, and human communities over time. Every community has histories of the place(s) in which they live – some of which may be in conflict because of lived experiences and positionality. Thinking across time scales allows us to incorporate these many perspectives and allow for multiple and diverse stories to be told and honored, and factor into decision-making – including designing an outdoor learning site. Understanding and considering how human decisions have shaped, and continue to shape, the land is critical to creating ethical, just and sustainable futures.

Key Terms

Historicity and History: While **history** is often viewed as a series of 'facts', **historicity** recognizes how people's perspectives and positions have shaped their understanding of history and visions of possible futures. Historicity is inherently powered – in other words, systemic power dynamics shape the structure relations between and among individuals, communities, and institutions (involving humans and more-than-humans).

Time Scales: This project names six different time scales. You may have other names for these time scales, but what is important is to consider how these time scales interact and are layered.

Activity Overview

This is a two-part activity.

- » **Part 1:** Conduct research about the histories of places related to your school, the surrounding neighborhood and the region more broadly using activity sheet 1.A.
- » **Part 2:** Share the research from activity sheet 1.A with the group. Walk the school yard together and use activity sheet 1.B to explore the various time scales. The time scales will help inform the decision making and design process of the outdoor learning place. Identify opportunities for further research and imagine future possibilities, that may include an outdoor learning place.

Extension/Alternate Activities:

- » There are several options for the co-design group and facilitator(s) to prepare for the Histories of Places walk. Each time scale could be researched by one member of the co-design group, or participants could research all time scales and compare notes, or the facilitator(s) could research and present a Histories of Places via powerpoint or another method.
- » After the Histories of Places walk (part 2), identify opportunities for further research by taking note of people's wonderings. Invite other community members to share their histories of the place.
- » Continue to think across time and places by opening up each meeting with new research about the histories of this place.
- » Read the Histories of Places and/or Power and Historicity framework found at learninginplaces.org

Socio-Ecological Histories of Places Framework:

The socio-ecological histories of places framework involves thinking across six time scales. This is a crucial practice when co-designing places for outdoor learning because it provides a lens to grapple with the layered histories of a place. These histories continue to shape the present and are necessary to understand in order to live into ethical responsibilities and possibilities. For example, we can consider how Himalayan blackberries that were brought over from Armenia to the Pacific Northwest (Nation-State Time and Global Time) have been widely dispersed by birds (Plant, Animals & Soil Time) and now interact with food sovereignty efforts of local tribes (Indigenous Peoples' Time). These layers all intersect with the questions: How should we relate to blackberries? and, Whose knowledge systems are used to find solutions (Living Ethical Responsibilities and Possibilities Time)?



CONNECT TO OTHER LEARNING ENGAGEMENTS

- Family LE 1.C: Taking a Family Histories of Place Walk
- Classroom LE 1.1 & 1.2: Histories of Places Launch and Family Walk

LEARNING IN PLACES FRAMEWORKS TO CONSIDER

- Socio-Ecological Histories of Places
- Power and Historicity

Using the Rhizome in the Co-design Process:

The following Rhizome prompts provide ways to routinely consider the core commitments towards creating more equitable outdoor learning places. The Rhizome foregrounds analyses of **power and historicity** and **nature-culture relations** as they intersect with the other parts of the Rhizome: **complex socio-ecological systems; field-based science; and culture, families & communities**. Use these questions as a way for the co-design group to keep all pieces of the Rhizome present during co-design.

Culture, Families and Community:

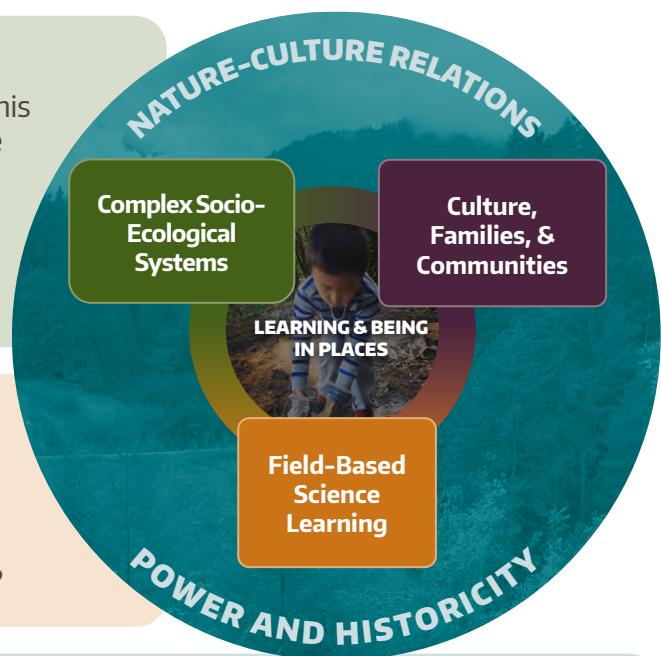
- » Cultivating land is a human cultural practice that has been done across time and places. How has the school site been cultivated in the past? Why was it cultivated in that way? By whom?
- » Many more-than-humans cultivate land in particular ways (“More-than-humans” includes animals, plants, water, etc.). How has the school site, or surrounding areas been cultivated by more-than-humans?

Complex Socio-Ecological Systems:

- » How have human decisions contributed to changes in this place? Which people, institutions, or communities made these choices? Why did they make those choices?
- » How do socio-ecological time scales intersect in our school yard? (example: natural processes, with plant, animal and soil time and recent human decisions?)

Field-Based Science Learning:

- » When engaging in restoration, scientists look at the various historical decisions that have been made to shape the land and waters of a place. What scientific investigations are happening in our community today?



Power and Historicity:

- » There are multiple histories of place, some that are conflicting or contradictory to one another, and some that hold dominance over others. How are people experiencing this place?
- » Peoples' values and visions are shaped by their lived experiences and histories, which inform their decision making, including in designing an outdoor learning place. If different perspectives are not taken into account or a dominant perspective is the only one present, other people's histories and experience are effectively/ essentially erased. Whose perspectives are present in this co-design?

Nature-Culture Relations:

- » How has our Histories of Places research made visible balances or imbalances of power between humans and the natural world?
- » Does the current design of the school yard align with a nature-culture divide model (humans “apart from” nature) or a complementarity model (humans “a part of” nature)?

Design Engagement 1: Histories of Places

Part 1: Histories of Places Research

MATERIALS

- » Activity 1.A should be done ahead of meeting as a co-design group. The facilitator can send blank copies of Activity 1.A to the group members to complete before meeting together.
- » Research could also be done as a whole group, but the facilitators will need to ensure resources are available for the co-design group to research Histories of Places.

ACTIVITY SHEET 1.A



Use this activity sheet to organize your research about the histories of places related to your school, the surrounding neighborhood and the region more broadly. This may take several hours, or time over multiple days. Set aside preparatory time to come prepared to the co-design session.

This activity sheet can be used as a way to organize independent research, collect prior knowledge from the co-design group or to support younger co-design members during the walk.

Pre-research is important to complete prior to the walk. This can address power and historicity by dis-allowing a dominant narrative to monopolize the walk. It also helps the co-design team to think, reflect and learn prior to discussing, and to answer some questions on their own without presuming someone can/should answer. The Histories of Places walk can be more generative with research information in hand.

Encourage the co-design group to bring photos, books, maps, or other physical artifacts of place.

Design Engagement 1: Histories of Places

Part 2: Histories of Places Walk

MATERIALS

- » pens
- » research from activity sheet 1.A
- » printed copies of activity sheet 1.B

TIME: 30 MINUTES



ACTIVITY SHEET 1.B

Activity 1 Part B: Using different time scales to explore the place you are co-designing
There are many time scales that make a place what it is today, and what it could be in the future. These time scales (a place's histories) span across land, plants, animals, and communities over time. As you walk the school grounds, use this chart to think about the place you are co-designing. Think about that place from the perspective of these different time scales. Fill out as much of the chart as you want. There are no right or wrong answers! We will use the ideas on this chart in future discussions.

Time Scales	What do we know about our place related to each of these time scales?	What questions or wonderings do we have about our place related to these time scales?	What decisions have people made that shaped this time? Which people? Why did they make those decisions?	What is possible for this place? (Living Ethical Responsibilities and Possibilities Time)
Geologic Time: Land and ocean processes, mountain formation, glaciation, etc.				
Plant, Animal, and Soil Time: Plants, animals, and soils of the area, species extinctions or adaptations				
Indigenous Peoples' Time: Recognizing First Peoples and their histories, current, and future relationships to this place				
Nation State Time: How the development of nations/states over time has shaped and impacted this place				
Global Time: How this place is connected to, impacts, or is impacted by other places across the earth and interacts with other time scales				

Before your walk, share out your findings from activity 1.A by using a large piece of paper or a white board to take notes of everyone's findings. Use post-it notes to gather noticing and questions that arise.

Take a walk outside as a group with activity sheet 1.B. As you walk, encourage everyone to make observations, and ask questions about what they wonder about as they observe (there is no "right" answer). Think about your observations and questions from different time scales.

Facilitation considerations:

- Be aware of the powered roles and intersectional identities of people in the co-design team. Specifically, interactions between families and schools have histories of power imbalances that are raced, classed and gendered. Be prepared and proactive about addressing power imbalances.
- Ensure there is space for many perspectives to be shared to ensure a dominant perspective is not the only one present.
- Review the Rhizome prompts on page 2, and identify specific ways to bring those considerations into the Histories of Places discussion.

- Which time scales do you want to learn more about given your observations?
- What decisions do you think were made about the land that impacted its current features? What evidence can you locate of those decisions?
- What is possible for this place? (this question will be important as we start to vision in activity two.)

Design Engagement 1: Histories of Places

Histories of Places Prompts -- use while walking/sharing

Plant, Animal, & Soil Time

- » Who are the plant/animal/soil communities that lived here prior to colonization?
- » Who are the plant/animal/soil communities that live now? If they are different than prior to colonization, how, why, and from where did they come to be here?

Geologic Time

- » How was the land formed through geologic processes?
- » How does geologic time inform how water moves through this place?
- » What kind of soil did geologic processes create? What is the soil like now?

Indigenous Peoples' Time

- » To which Indigenous group(s) is this land significant?
- » What is the relationship of Indigenous people to the land since time immemorial? Has this relationship changed?
- » What is the relationship of Indigenous people to the land now?
- » Which Native organizations or local tribes in our community can our co-design team connect to and/or invite to learn more and inform the co-design process?

Geologic Time includes the histories of lands, oceans, and other water processes.



Plant, Animal, & Soil Time includes the histories of plants, animals, and soils and their relationships to lands and waters.

Indigenous Peoples' Time recognizes First Peoples' histories, presents, and sovereignties in places and across time.

Nation-State Time refers to global shifts in political and economic structures that often include human movements across continents, powered shifts in technology, language, culture, and human relationships with the natural world.

Global Time includes how our local places are connected to, impact, or are impacted by other places across the earth and interact with other time scales.



Living Ethical Responsibilities and Possibilities Time includes the possible stories for places in the future.

Nation-State Time

- » What events led to the colonization of the land?
- » What events shaped the land and area? (e.g. immigration, migration, industrialization, city development, land restructuring, rerouting water, etc.)
- » What existed on this land before it was a school? (e.g. industry, farmland, forest, etc.)
- » If there is a garden on school grounds, how did it come to be?

Global Time

- » How is our school yard connected to, impacted by, and/or impact other places across the earth?
- » How are gardens connected to other places across the earth?

Living Ethical Responsibilities and Possibilities Time

- » How do we want to engage with the school grounds in the future? Why? How?
- » What excites you in this place? What futures are possible here?

Geologic Time



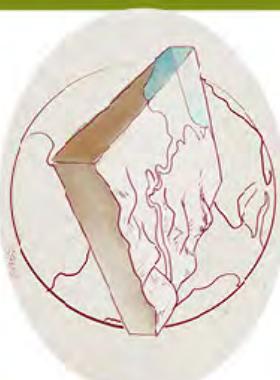
Plant, Animal, & Soil Time



Indigenous Peoples' Time



Living Ethical
Responsibilities
and
Possibilities
Time



Nation-State Time



Global Time



Activity 1 Part B: Using different time scales to explore the place you are co-designing

There are many time scales that make a place what it is today, and what it could be in the future. These time scales (a place's histories) span across land, plants, animals, and communities over time. As you walk the school grounds, use this chart to think about the place you are co-designing. Think about that place from the perspective of these different time scales. Fill out as much of the chart as you want. There are no right or wrong answers! We will use the ideas on this chart in future discussions.

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Indigenous Peoples' Time: Recognizing First Peoples and their histories, current, and future relationships to this place				
Nation State Time: How the development of nations/states over time has shaped and impacted this place				
Global Time: How this place is connected to, impacts, or is impacted by other places across the earth and interacts with other time scales				



Co-designing Places for Outdoor Learning Facilitation Guide

Design Engagement 2: Vision and Values

Activity Purpose

Co-designing an outdoor learning space involves consideration at many levels – from the overarching understanding of the physical attributes of the area, to the history of land, people, and more-than-humans (animals, plants, insects, etc.), as well as the learning goals for the space. All of these should inform the process for design (or redesign). Vision development is an important process that helps identify common values, develop a shared sense of purpose, and set a direction for outdoor learning place programs. Outdoor learning places should be designed and built with a shared purpose or intent in mind and reflect the values of those involved in the planning. Sometimes, the intent evolves as time passes, new people are involved, or new resources or needs are identified. Returning to reevaluate changing values and visions may be necessary.



Key Terms

Value: what we hold to be important as a community.

Vision: an overarching plan for the future, an overall intent of use or purpose.

Activity Overview

This is a two-part activity:

- » **Part 1:** Use the activity sheet 2.A to identify the values related to the outdoor learning place.
- » **Part 2:** Use the activity sheet 2.B to develop a shared sense of purpose by developing a vision.



Extension Activities:

- » Work in small groups and divide up the rhizome prompts on page two. Have the groups write down responses to the various questions. After responding to the questions, come back together and share out the top 2-3 ideas from each group.
 - These questions are key to tying together several important factors: how the outdoor learning site promotes learning, community, and equity, along with the site's relationship to the land around it, humans, wildlife and plants. Discussing as a group will help in sharing different perspectives that will support the creation of a design that meets the goals of the larger group. The answers may change over time, and may take time to develop and evolve. Take notes and consider revisiting them several times over the school year. Thinking about these questions will hopefully encourage discussions and action steps needed to create a sustainable and equitable outdoor learning space.

Using the Rhizome in the Co-design Process:

The following Rhizome prompts provide ways to routinely consider the core commitments towards creating more equitable outdoor learning places. The Rhizome foregrounds analyses of **power and historicity** and **nature-culture relations** as they intersect with the other parts of the Rhizome: **complex socio-ecological systems; field-based science; and culture, families & communities**. Use these questions as a way for the co-design group to keep all pieces of the Rhizome present during co-design.

Culture, Families and Community:

- » Who are we as a design team? What roles and perspectives do we bring? What perspectives might be missing that could be problematic?
- » How are the social and intellectual resources and expertise of families and communities at our school being valued in the design of the outdoor learning place?

Complex Socio-Ecological Systems:

- » How does the outdoor learning place honor the history of the land?
- » How does the outdoor learning place position students as decision makers who are able to impact the natural world?

Field-Based Science Learning:

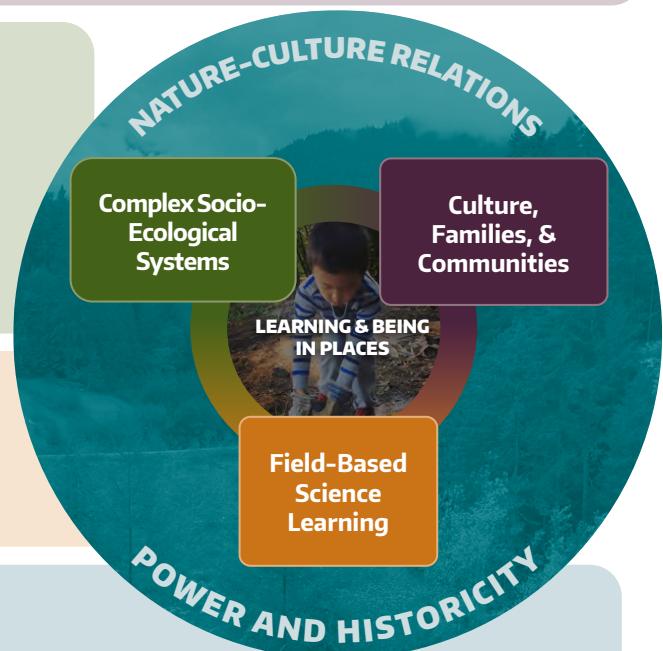
- » How can the outdoor learning place support engagement in science and engineering practices?

Power and Historicity:

- » In our design process, in what ways are we guided by multiple perspectives and possibilities to help make visible the powered and historical layers of social and ecological systems?
- » How does the outdoor learning place engage in creating sustainable and just futures?

Nature-Culture Relations:

- » Which of our values from activity 2.A describe our relationship with the natural world?
- » What is our commitment to designing and maintaining a sustainable outdoor learning place?



CONNECT TO OTHER LEARNING ENGAGEMENTS

- Family LE 1.B Learning Across Places
- Classroom LE 1.4 Learning Across Places Family Tool

LEARNING IN PLACES FRAMEWORKS TO CONSIDER

- Socio-Ecological Histories of Places
- Culture, Learning, and Identity
- Family & Community Engagement

Design Engagement 2: Values and Vision

Part 1: Values

MATERIALS

- » pens
- » sticky pad notes,
- » activity sheet 2.A
- » large paper

TIME: 30 MINUTES



ACTIVITY SHEET 2.A

ACTIVITY SHEET 2.A: VALUES

Write down your top 3-5 values related to the outdoor learning place.

- Why is outdoor learning important to you?
- What is important about having an outdoor learning place on the school campus?
- How does the outdoor learning place connect to/support broader school and community values?

After taking time individually to write down value statements, share out as a group or use post-it notes on a large sheet of paper. Are there similarities or overlaps?

Create groupings of values based on broader categories. Work to identify the top 3-6 values and reword as appropriate.

Our Values Are:

- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |

Ensure all voices are being heard by incorporating a variety of ways to respond such as post-it notes, activity sheets, individual thinking time, small group work and whole group conversation.

Pass out post-it notes and/or this activity sheet and have each person in the design team spend a few minutes writing down their top 3-5 values related to the outdoor learning place.

After taking time to individually write down values, have everyone share out and record ideas on a large poster paper (or stick their post-it notes on a large sheet of paper).

Take a moment to read all the values.

- (1) Create grouping of values based on broader categories.
- (2) Share back the values to the whole group.
- (3) Identify the top 3-6 values and re-word as appropriate.

Design Engagement 2: Values and Vision

Part 2: Vision

MATERIALS

- » pens
- » sticky pad notes, or activity sheet 2.B
- » Completed activity sheet 1.B Histories of Places
- » large paper

TIME: 30 MINUTES



ACTIVITY SHEET 2.B

ACTIVITY SHEET 2.B: VISION

As a whole group, use the top values to develop a vision statement about how the outdoor learning place will contribute to the school/community. Use the last column "Living Ethical Responsibilities and Possibilities" from Histories of Places Activity 1.B to help consider a vision across multiple time scales.

Examples:

- "The forest restoration area is a space for year-round, field-based investigation that promotes student science learning."
- "The food-for-humans garden grows and shares food with the school community and is a place to learn about where fruit and vegetables come from."
- "The rain garden manages stormwater runoff and is a site for 4th and 5th grade learning about land and water."

Keep in mind:

- » How will the vision be revisited over time with this group or others, to accommodate and incorporate its evolution?
- » How do you envision the outdoor learning site being woven into the school culture?

If you have a large team, consider breaking into small groups and brainstorming possible visions before coming together as a whole group.

Use the last column "Living Ethical Responsibilities and Possibilities" from Histories of Places Activity 1.B to help consider a vision across multiple time scales.

Activity 1 Part B: Using different time scales to explore the place you are co-designing			
Time Scales	What do we know about our place related to each of these time scales?	What questions or wonders do we have about our place related to these time scales?	What decisions have people made that shaped this time scale? (Who made those decisions?)
Geologic Time: Land and ocean processes, mountain formation, glaciation, etc.			
Plant, Animal, and Soil Time: Plants, animals, and soils of the area, species extinctions or adaptations			
Indigenous Peoples' Time: Recognizing First Peoples and their histories, current, and future relationships to this place			
Nation State Time: How the development of nations/states over time has shaped and impacted this place			
Global Time: How this place is connected to, impacts, or is impacted by other places across the earth and interacts with other time scales			

Vision statements don't need to be words. Encourage the team to draw out their vision, find an object or photo that represents their vision, model the vision with clay or act out the vision.

Once the group has identified a vision, share it at your school. Ask other families, teachers, administrators, students and neighbors if they resonate with the vision and encourage people to make suggestions and changes.

ACTIVITY SHEET 2.A: VALUES

Write down your top 3-5 values related to the outdoor learning place.

- *Why is outdoor learning important to you?*
- *What is important about having an outdoor learning place on the school campus?*
- *How does the outdoor learning place connect to/support broader school and community values?*

After taking time individually to write down value statements, share out as a group or use post-it notes on a large sheet of paper. Are there similarities or overlaps?

Create groupings of values based on broader categories. Work to identify the top 3-6 values and reword as appropriate.

Our Values Are:

- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |

ACTIVITY SHEET 2.B: VISION

As a whole group, use the top values to develop a vision statement about how the outdoor learning place will contribute to the school/community. Use the last column “Living Ethical Responsibilities and Possibilities” from Histories of Places Activity 1.B to help consider a vision across multiple time scales.

Examples:

- *“The forest restoration area is a space for year-round, field-based investigation that promotes student science learning.”*
- *“The food-for-humans garden grows and shares food with the school community and is a place to learn about where fruit and vegetables come from.”*
- *“The rain garden manages stormwater runoff and is a site for 4th and 5th grade learning about land and water.”*



Co-designing Places for Outdoor Learning Facilitation Guide

Design Engagement 3: Place Mapping

Activity Purpose

All forms of gardening and land management include some aspect of human and more-than-human involvement, working in tandem. There are also natural patterns and phenomena that occur in the larger environment and ecosystem that inform land management. This activity will use place mapping as a tool to identify features of the place that support learning. These features include natural patterns and phenomena (plant and animal behavior, wind, sun, slopes, etc) and constructed hardscapes (like a sidewalk) or other physical structures (such as garden beds or compost systems). Mapping different features of the land promotes the design of places that enhance learning opportunities that are already present.

A school is also part of a much larger context of the surrounding neighborhood, watershed, and region. By walking the surrounding neighborhood as well as the school grounds, the map will help connect and illustrate the relationship between things across space.



Activity Overview

This is a three-part activity:

- » **Part 1:** Print (or draw) a map of the school property and the neighborhood around the school
 - Refer to Appendix C for instructions on how to create a “birds eye” (overhead) view Google map of your site.
- » **Part 2:** Walk the land around your school with the design team. Start the walk in the surrounding neighborhood and work your way in towards the school grounds. Use activity sheet 3 to record features of the land that you notice.
 - If time is a constraint, consider having small groups map different areas around the neighborhood and share back.
- » **Part 3:** After walking the land around the school grounds, return inside to discuss the experience. Use a large map to collect everyone’s noticing. This conversation will support in exploring how different places help us to learn different things.

Identifying Outdoor Learning Place Types and Elements

Outdoor learning places take many forms. Below are various types of learning sites you might find on school grounds or in the surrounding neighborhood. Included are the common features of these types of gardens. If existing learning site are identified, assess these sites with the activity in Appendix D "Redesigning with Existing Outdoor Learning Sites."



Annual/perennial fruit and vegetable garden: gardens designed and cultivated by humans to produce food and may include: raised garden beds, defined walkways, and/or compost systems.



Pollinator Garden: cultivating plants and habitats that support native pollinator species, such as native bees, pollinator insects, birds, bats, and others.



Restoration Garden/Site: areas that are being restored to their native ecological origin, such as restoring a wetlands or forest area. This may include invasive plant species that are in the process of being removed and/or native ground cover, shrubs or trees.



Rain Garden: an engineered land formation with plants that can thrive in dry and wet conditions. Used to reduce stormwater runoff and flooding.



Wildlife Garden: gardens cultivated to provide habitat such as shelter, food, and water for wildlife such as animals, birds, reptiles and insects. This may include bird or bat houses, downed trees or ponds.



Native Plant Garden: areas where plants native to the region are cultivated for habitat and human use. These are sometimes called Ethnobotanical Gardens.



Permaculture Garden (Permagarden): gardens where plants, resources, and human activity are designed to interact synergistically and efficiently, for the most production with the least labor and resources. This may include fruit tree guilds, herb spirals or Hugelkultur beds.



Therapeutic Garden: gardens that are designed to meet physical, social and spiritual needs. This may include accessible planters, and/or quiet private sitting areas.

Using the Rhizome in the Co-design Process:

The following Rhizome prompts provide ways to routinely consider the core commitments towards creating more equitable outdoor learning places. The Rhizome foregrounds analyses of **power and historicity** and **nature-culture relations** as they intersect with the other parts of the Rhizome: **complex socio-ecological systems; field-based science; and culture, families & communities**. Use these questions as a way for the co-design group to keep all pieces of the Rhizome present during co-design.

Culture, Families and Community:

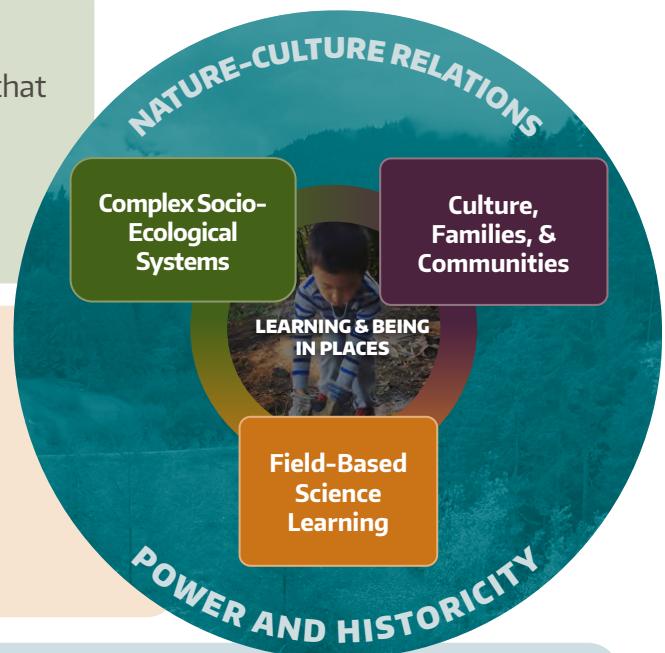
- » What features of the land are important to my family?
- » Why are places like this important to my family?

Complex Socio-Ecological Systems:

- » What were land features or natural phenomena that you noticed or were curious about on the walk? How might those features be connected?
- » Did you notice similarities and differences across places?

Field-Based Science Learning:

- » What elements did you see that you think would encourage science learning?
- » Which area that you visited was the most engaging? What types of things might kids do or learn in these places?



Power and Historicity:

- » What powered dynamics in land management are present in this place?

Nature-Culture Relations:

- » Where do we notice humans interacting with nature?
- » How are humans cultivating land in different ways?



CONNECT TO OTHER LEARNING ENGAGEMENTS

- Family LE 1.A Sharing Places Neighborhood Walk
- Family LE 2.B Wondering Walk
- Family LE 3.B Taking a Focused Walk Together: Relationships

LEARNING IN PLACES FRAMEWORKS TO CONSIDER

- Complex Socio-Ecological Reasoning
- Nature-Culture Relations
- Relationships in Socio-Ecological Systems

Design Engagement 3: Place Mapping

Part 1-3: Place Mapping

MATERIALS

- » map of school yard and surrounding neighborhood (drawn or printed)
- » pencils
- » clipboards (not required, but helpful when drawing)
- » large map or paper for whole group debrief

TIME: 60 MINUTES



ACTIVITY SHEET 3

Draw your School Yard and Surrounding Neighborhood Below:

During your walk draw use symbols, colors, drawings and words to record interesting things you see on your walk. These might include **natural kinds** (rocks, soil, wind/air, water, sunlight), **places** (lands, waters, the built environment -- houses, roads, stormdrains) and **species** (animals, plants, people, fungi...). For example you might see:

- | | |
|--|--------------------------------------|
| • A puddle in a field | • A squirrel in a tree |
| • A big grassy hill with small flowers | • A neighbor harvesting blackberries |
| • A garden next to a side walk | |
| • Leaves on top of a basketball court | |
- There are many other things you can observe!

On the back of this paper write down any questions that are being asked.

Part one: Draw or print a map of the school yard and the neighborhood around the school. Refer to appendix C for instructions on how to create a "birds eye" view Google map of your site.

Part two: Walk the land around your school with the design team. Start the walk in the surrounding neighborhood and work your way in towards the school grounds. Visit any existing gardens or outdoor learning places. Record interesting things you see on your walk. Consider these prompts:

- What is in the surrounding neighborhood? (green space, gardens, parks, houses, businesses, industry, roads, ect)
- What are the features of the land that you notice? (Hills and valley, forest, water, large trees, prairie, other)
- Who is here? (plants, animals, people..)
- Where do you notice water? How is it moving?
- What wind patterns do you notice? Sun or shade patterns?

Part three: After walking the land around the school grounds, return inside to discuss the experience. This conversation will support in exploring how different places help us to learn different things. The Rhizome prompts on page 2 can be used to help focus this discussion.

- Use a large version (either printed or drawn) of the birds-eye view map to gather and synthesize information from everyone who participated. Use stickers, markers or stamps to mark on the large map the locations of different noticing. You will use these noticing during DE 4.

Draw your School Yard and Surrounding Neighborhood Below:

During your walk observe what is around you. Record your observations of interesting things by using symbols, colors, drawings and words. These might include **natural kinds** (rocks, soil, wind/air, water, sunlight), **places** (lands, waters, the built environment -- houses, roads, stormdrains) and **species** (animals (including people), plants, fungi...). For example, you might see:

- A puddle in a field
 - A big grassy hill with small flowers
 - A garden next to a side walk
 - Leaves on top of a basketball court
 - A squirrel in a tree
 - A neighbor harvesting blackberries
- There are many other things you can observe!

On the back of this paper write down any questions that are being asked.



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Design Engagement 4: Rhizome Mapping

Activity Purpose

Now that you have done the Place Mapping activity, your group is going to take the same walk, but use the Rhizome to consider each place beyond its physical attributes. Often, school gardens or outdoor classroom locations are selected purely for their proximity to water, the amount of sun they receive, or even if the place is “out of the way” or in a community gathering place. These are important factors depending on the kind of outdoor space you want to design, but they alone will not lead your group to create an equitable and transformative outdoor learning place. This is where the Rhizome helps us ensure that decisions about site selection are connected to larger social, ecological and relational contexts. The Rhizome helps us see ourselves and others in place – with families and communities, shaped by power and historicity, enacting nature-culture relations, engaged in science learning, and making decisions in complex socio-ecological systems (return to page 6 of the “Introduction to the Facilitation” for more information.) We can think about each of the Rhizome parts as a “lens” that we will use to think critically about the places we identified in the Place Mapping activity (DE 3.) These prompts may feel natural – and perhaps you have already identified some of them during the Place Mapping walk. Some may feel challenging, or maybe even be something you haven’t thought of before in place. Also keep in mind that people may have similar or conflicting experiences or histories in a place, and this should be considered carefully, as it will inform future experiences and learning there.

By considering these parts of the Rhizome, we aim to identify areas on the school ground where learners can further discuss, explore and investigate these larger contexts.



Activity Overview

This is a two-part activity:

- » **Part 1:** Walk the same route you took during Activity 3: Place Mapping. Using the Rhizome, mark on the map the five parts of the Rhizome.
 - Continue to add directly to the maps created during Activity 3. Or sketch a new map on Activity 4 and compare the maps during debrief.
- » **Part 2:** After the walk, come together and debrief your noticing using the Rhizome prompts on page 2..

Using the Rhizome in the Co-design Process:

The following Rhizome prompts provide ways to routinely consider the core commitments towards creating more equitable outdoor learning places. The Rhizome foregrounds analyses of **power and historicity** and **nature-culture relations** as they intersect with the other parts of the Rhizome: **complex socio-ecological systems; field-based science; and culture, families & communities**. Use these questions as a way for the co-design group to keep all pieces of the Rhizome present during co-design.

Culture, Families and Community:

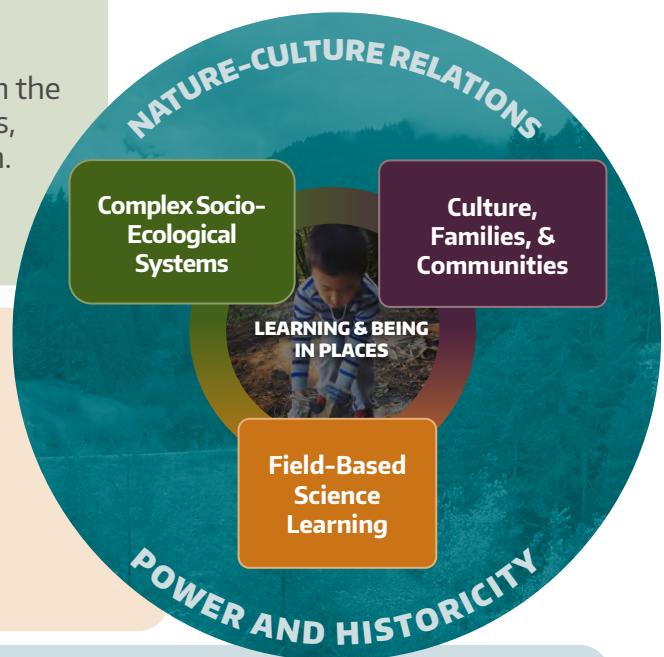
- » Where are places that are connected to family and/or cultural practices?
How are they connected?
- » How can culture, families and communities be present in our learning place?

Complex Socio-Ecological Systems:

- » Where are interdependent relationships observable on the school ground? For example: mycelium and plant roots, birds and seed dispersal or ants and aphids in a garden.
- » How can our place design encourage learners to take action toward positive socio-ecological change?

Field-Based Science Learning:

- » How might learners investigate phenomena? What unique phenomena do we see here?
- » How does this outdoor learning place connect to science learning that happens in classrooms and/or informal education spaces?



Power and Historicity:

- » Power and historicity will inform future experiences and learning in this place. How does our design address powered dynamics?

Nature-Culture Relations:

- » How are humans and more-than-humans (plants, animals, water, soil) relating to one another in this place?
- » How could our design encourage more ethical relationships in this learning place?



CONNECT TO OTHER LEARNING ENGAGEMENTS

- Family LE 3.C Taking a Focused Walk Together: Places, Lands and Waters
- Family LE 3.E Taking a Focused Walk Together: Thinking Across Scales

LEARNING IN PLACES FRAMEWORKS TO CONSIDER

- Complex Socio-Ecological Systems
- Power and Historicity
- Nature-Culture Relations

Design Engagement 4: Rhizome Mapping

Part 1 & 2: Rhizome Mapping

MATERIALS

- » Bird's eye view of school yard (printed or drawn, see appendix C)
- » Materials for mapping:
 - different color markers/stickers
- » Activity Sheet 4 & Mapping Activity Prompts
- » large map or paper for whole group debrief

TIME: 60 MINUTES



ACTIVITY SHEET 4

Draw a birds eye view of your school yard and map the connections to the rhizome.

Activity 4: Use these Rhizome prompts to mark on the map places that connect to the Rhizome

Culture, Families and Community:
Diverse perspectives from family knowledges and practices are critical for decision-making.
» Where would we want to spend time as families?
» What places help us feel a sense of wonder?
» Where do we see our family culture?
» What places remind us of home?
» Where does your family spend time at school?

Complex Socio-Ecological Systems:
There are many complex decisions that influence relationships in school yards. Humans are a part of these networks of relationships, and make many decisions that lead to ecosystem change.
» Where do we see lots of life? (plants, animals, people...) how might the things you notice be connected?
» Where do we see healthy ecosystems?
» Where do we see people interacting with plants, animals, water, soil in this place?
» Where has the land and water shaped human behavior and decisions here? How have humans shaped the lands and waters?

NATURE-CULTURE RELATIONS
POWER AND HISTORICITY
Complex Socio-Ecological Systems
Learning & Being
Field-Based Science Learning
Culture, Families & Communities
Nature-Culture Relations

Part one: Use the same route in Activity 3 to walk around the school yard and pause at different locations. Read through the prompts following Activity Sheet 4 and mark on the map places that connect to the Rhizome.

- Consider assigning different members of the co-design team to one of the 5 Rhizome nodes to ensure all aspects are being considered on your map.
- Use Activity Sheet 4 to sketch a map or print off a map and use different color markers, stickers or small sticky notes.

Have a member of the co-design take notes during the walk! Write down questions and observations from the group.

Part two: After walking the land in and around the school grounds, return inside to discuss the experience. Use a large version (either printed or drawn) of the birds-eye view map to gather and synthesize information from everyone who participated. This conversation will support the group in selecting a site that connects to all the five parts of the Rhizome. Use the Rhizome prompts on page 2 to help to focus the discussion.

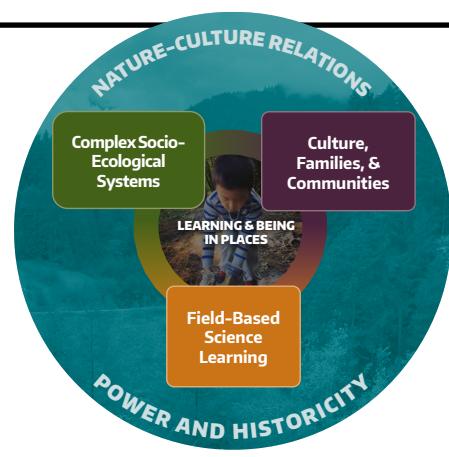
- What is our map showing us?
- Are there places on the school ground where all parts of the Rhizome are interacting?
- How does the Place Map and Rhizome Map interact? Are there physical features that connect to the Rhizome?
- Has your idea of a learning site changed? How?

Activity Sheet 4:

Draw a birds eye view of your school yard and map the different places where you see connections to the Rhizome.

During your walk draw use symbols, colors, drawings, stickers and/or words to record different places where you see connections to the Rhizome. See the next 2 pages for prompts for each of the Rhizome nodes.

- **Culture, Families and Community**
- **Complex Socio-Ecological Systems**
- **Field-Based Science Learning**
- **Power and Historicity**
- **Nature-Culture Relations**



Activity 4: Use these Rhizome prompts to mark on the map places that connect to the Rhizome

Culture, Families and Community:

Diverse perspectives from family knowledges and practices are critical for decision-making.

- » Where would we want to spend time as families?
- » What places help us feel a sense of wonder?
- » Where do we see our family culture?
- » What places remind us of home?
- » Where does your family spend time at school?



Complex Socio-Ecological Systems:

There are many interdependent and interconnected relationships in school yards. Humans are a part of these networks of relationships, and make many decisions that lead to ecosystem change.

- » Where do we see lots of life? (plants, animals, people...) How might the things you notice be connected?
- » Where do we see healthy ecosystems?
- » Where do we see people interacting with plants, animals, water, soil in this place?
- » Where has the lands and waters shaped human behavior and decision here? How have humans shaped the lands and waters?



Activity 4: Use these Rhizome prompts to mark on the map places that connect to the Rhizome

Power and Historicity:

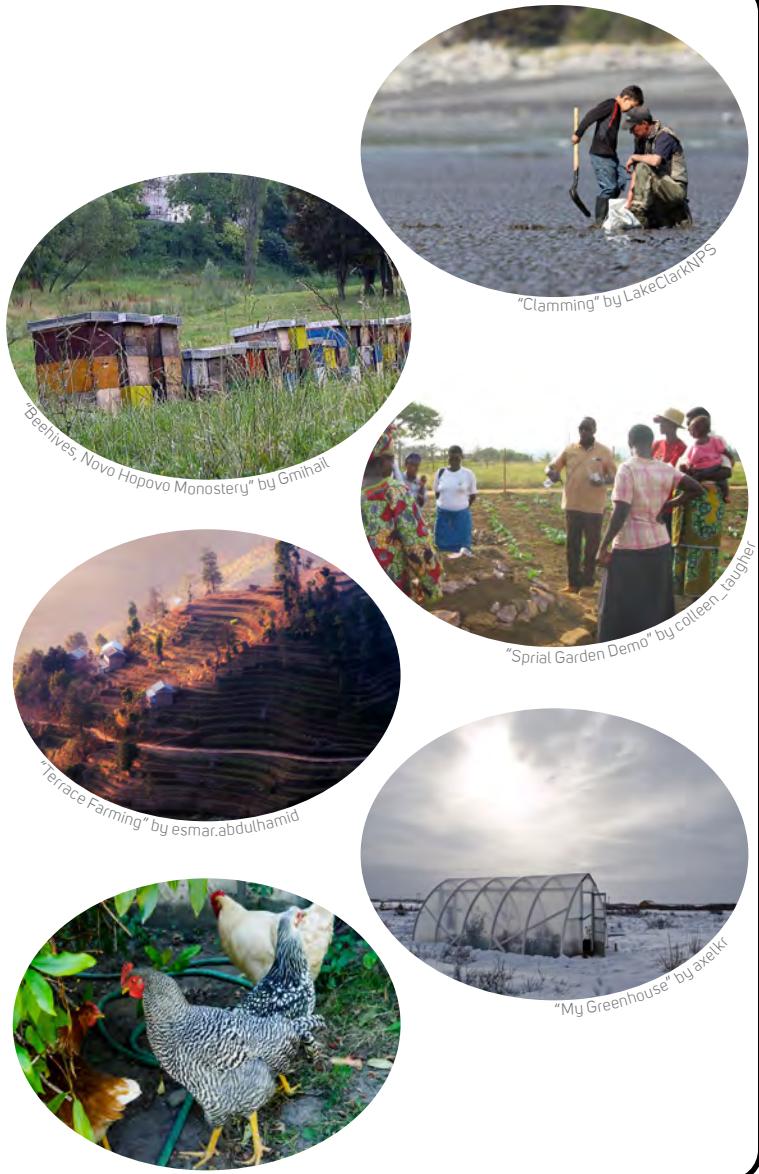
Cultivating lands and waters is a cultural practice with expansive variation across time and place. For example, gardens have a range of purposes from food and medicinal, to material and aesthetic. Animals also cultivate land and water.

- » Who designed these places? Who are these places designed for? Is this place designed with more-than-humans in mind?
- » Who has access to this place? Who doesn't have access to this place? Why or why not?

Nature-Culture Relations:

Our choices around how we build outdoor learning spaces are shaped by views of how humans relate with the natural world. Learning outdoors and making healthful decisions that impact the natural world supports a view that humans are "a part of" rather than "apart from" nature.

- » Where have humans made healthful impacts to the natural world on the school ground? Include different methods of cultivation of land.
- » Where are spaces that would encourage future healthful decisions?



Field-Based Science Learning:

Different places can help us learn different things. Outdoor places support interactive science learning.

- » What places make us curious?
- » What do we already know about this place?
- » What does this remind us of?
- » What can this place teach us?



Co-designing Places for Outdoor Learning Facilitation Guide

Design Engagement 5: Site Selection

Activity Purpose

The previous four design engagements were created to provide different “lenses” in which to learn about the places around the school. Developing a robust sense of place is important for designing equitable and transformative outdoor learning sites. This activity will synthesize the previous activities as a way to select a place on the school grounds to develop or enhance as an outdoor learning site.

The four design engagements were:

- **Design Engagement 1 - Histories of Places:** consider six different time scales in how the school grounds came to be the way it is today
- **Design Engagement 2 - Vision and Values:** identify shared values to create a vision for the outdoor learning place
- **Design Engagement 3 - Place Mapping:** walk the school grounds and surrounding neighborhood to map features of the land that support learning
- **Design Engagement 4 - Rhizome Mapping:** walk the school grounds and creating a map of the places that connect to families, science learning, complex systems, nature-culture relations and power & historicity

By revising and reflecting on these four design engagements the group can identify an outdoor learning place that considers each of these lenses along with features of the land that support learning.



Activity Overview

This is a two-part activity:

- » **Part 1:** Review and reflect on previous co-design session
- » **Part 2:** Whole group conversation to identify a site

Part 1: Review and reflect on previous co-design sessions

Gather Activity sheets 1-4 and any poster paper, large maps, photos, synthesis documents and/or group notes from the previous co-design sessions. Place these artifacts around the room and allow team members to individually review and reflect on each activity. Team members can take notes, or add thoughts on sticky notes as they walk around the room. Alternatively, you can walk around the room as a whole group, recalling the co-design sessions together. Ensure that everyone is able to see the artifacts, and provide sticky notes or pen/paper for people to jot down any noticing, wondering or new ideas.

Part 2: Identify a site

Once everyone has reviewed the activities, bring the group together in a whole group setting. And discuss the prompts below

- Have your values and vision shifted? How?
- Where are the places on the school grounds that the team seems to gravitate towards?
- Do the maps, posters, photos, and/or notes reveal any patterns? Does any new information arise that could help select a site?
- Should you redesign/enhance any of the existing outdoor learning places you visited?
- If there are multiple outdoor learning places, do they connect with one another? Why or why not? Could they be connected for a deeper learning experience?

As a group, select a site. If there are multiple possible outdoor learning places, consider walking as a group to these potential sites to help narrow down choices. Or, the group can consider designing in multiple spaces.



Co-designing Places for Outdoor Learning Facilitation Guide

Design Engagement 6: Site Design

Activity Purpose

Now that your group has selected a site, it is time to start dreaming forward and imagining future possibilities! Your group will do this by starting to design for a new or enhanced outdoor learning site. Every site will have unique opportunities and challenges that your design will need to address, including the natural land formation and existing structures. The design you create should be site-specific and enhance the learning opportunities that are already present in that location. This is a time for expansive design thinking. No idea is too big or too small!



Who should we share our site design with?

Intentionally identify which stakeholders and community members should provide feedback and suggestions on the site design. Are there people who should be involved who we haven't thought of and/or aren't usually asked to participate?

- students and their families
- school staff (custodians, teachers, principal, district staff, para-educators)
- Community-Based Organizations
- residents of the surrounding site
- people who visit or use the school grounds before or after school
- staff and families from on-site after-school programs

Activity Overview

This is a two-part activity.

» Part 1: Design the new or enhanced outdoor learning site.

Using maps of the existing outdoor learning area, design the dream outdoor learning site. Use markers, crayons, pens, pencils, scissors, glue, and any other materials that will help with the creative design process. Consider printing off images from other outdoor learning places and having them available for collaging. There are many ways to capture design ideas. The design activity outlines a few of these processes. The goal of this activity is to find a way to communicate to people what your design ideas are through photos, 3D models, or drawings.



» Part 2: Share this design with your community and receive feedback and suggestions.

After creating a representation of the design, identify stakeholders and present the ideas to your community for review. Receive feedback and suggestions from your community and revise the design as necessary. This step is crucial. It is important to gather a wide range of feedback and suggestions, which will help ensure that the outdoor learning site is responsive and reflective of the community at large.

Using the Rhizome in the Co-design Process:

The following Rhizome prompts provide ways to routinely consider the core commitments towards creating more equitable outdoor learning places. The Rhizome foregrounds analyses of **power and historicity** and **nature-culture relations** as they intersect with the other parts of the Rhizome: **complex socio-ecological systems; field-based science; and culture, families & communities**. Use these questions as a way for the co-design group to keep all pieces of the Rhizome present during co-design.

Nature-Culture Relations:

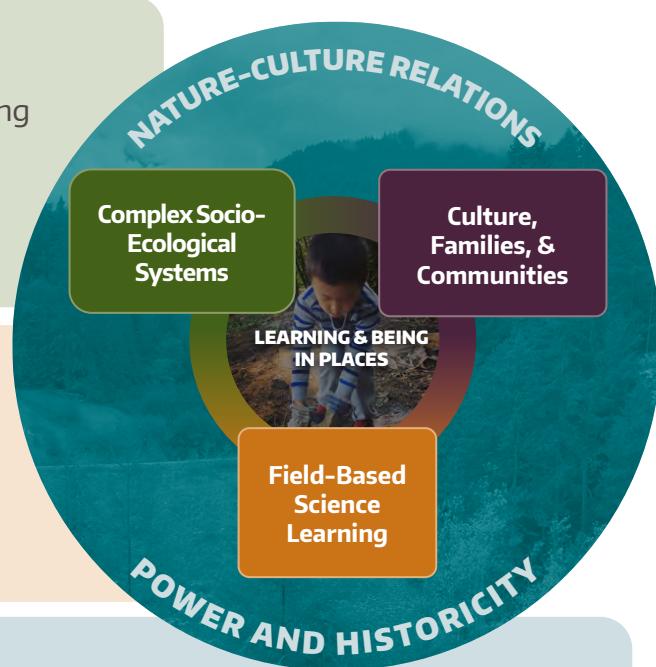
- » How is our outdoor learning place culturally relevant to the surrounding communities?
- » How does the design make space for families and community members to share their expertise?

Complex Socio-Ecological Systems:

- » How does the design support student sense-making and decision-making?
- » How are the features of the outdoor learning place providing opportunities to observe and engage with complex socio-ecological systems?

Field-Based Science Learning:

- » How are you designing the outdoor classroom as a place for learning?
- » How does the design support engagement in science and engineering practices?



Power and Historicity:

- » Who is your site designed for?
- » Who will have access to the site?
- » How has city planning, policies around land use, and Power and Historicity played a role in shaping the space that you are designing?

Nature-Culture Relations:

- » How is the outdoor learning site facilitating reciprocal relations, among humans and more-than-humans?
- » How does the outdoor learning place recognize the more-than-human world?



CONNECT TO OTHER LEARNING ENGAGEMENTS

- Classroom LE 9 Bundle: Sharing Insights and Explanations

LEARNING IN PLACES FRAMEWORKS TO CONSIDER

- Communicating & Organizing for Socio-Ecological Change

Design Engagement 6: Site Design

Part 1: Design the new or enhanced outdoor learning site

MATERIALS

- » various design materials (see options below)
- » sticky pad notes
- » large paper

TIME: 1 HOUR 30 MINUTES



There are multiple design scenarios that are possible. Below is a description of what various design sessions could look like:

- Gather old magazines, photos or maps and create a collage of the outdoor learning site. The team can draw, write or sketch additional design ideas on the collage.
- As a group go outside and interact with the selected site. This could involve watching how children interact with this space. Invite the team to take different perspectives. Where would water move on this site? How would wind move through this site? What would a bird do on this site? Where would a bee go on this site? Take pictures and note what people are doing in this space. Write down the ideas that are being shared.
- If your design is trying to solve a landscaping problem (like stormwater runoff or erosion) create a "makerspace" with materials where teams can begin to create solutions. Bring in extra material like sticks, rocks, buckets, water, or burlap. The design teams can create solutions on the site using these materials. Be sure to explain how the design solves the problem.
- Bring supplies to make a 3-dimensional model of the site design. This could include clay, pipe-cleaners, cardboard, ect.
- For illustrations of potential design elements see the resources listed in Appendix E.



Part 1: Design the new or enhanced outdoor learning site

Facilitation notes:

- Depending on your design session, you may be creating one design as a whole group, having small groups create multiple design options, or even having individuals illustrate their own ideas. If people are creating a design independently, provide enough time to display all the ideas. Then, hold a "gallery walk", where everyone can leave design suggestions on each design. Identify the big ideas that were generated.
- Encourage an environment of collaboration. Let the team know this is not a competition, the goal is to share and build off each other's ideas.
- These sessions can also be facilitated through stations. Each team can create a design together and then rotate through stations of other teams' designs. One person from the group can stay at their original station as a 'host' to answer questions about the design. The rest of the group rotates around the room and builds on other designs.
- As the team is designing the new site be sure they are considering these prompts:
 - » What are the natural land formations and phenomena that provide opportunities and challenges for outdoor learning site design?
 - » What are the existing structures and features that provide opportunities and challenges for outdoor learning site design? What condition are they in?
 - » What does the site afford for learning already?



Part 2: Share this design with your community

MATERIALS

- » representation of the design from Part 1
- » sticky pad notes, stickers, ect for community to provide feedback

TIME: 1 HOUR



Once the team has created a representation of the design options, present the ideas to your community for review. Identify stakeholders for targeted feedback. Be sure to share to the broader community as well, and provide time for community-wide feedback and design ideas. There are multiple processes to share the design:

- Create a poster of the different designs and invite your community to vote with stickers on their favorite design. Create a box where people can leave other suggestions. Attend a family night or other school event and share the design ideas there. Put the poster in the staff lounge to gather teacher feedback, or ask to present at the next school staff meeting.
- Contact community-based organizations and gather feedback from staff and community members. Ask to attend a community event or meeting and set up a station to share the design ideas.
- Create a simple website that shares the design ideas and co-design process. Put a notice in the school newsletter and hang fliers around the school to let people know to visit the website. Create an email account for people to send in their design suggestions.
- Other ways to receive feedback: email out a survey, call people, create an online forum or host a zoom meeting
- Consider sharing out the design ideas in multiple ways. You will get different types of feedback depending on your strategy.

Facilitation notes:

- In addition to sharing your design idea, share and reflect on the process of co-designing: What has your team learned? How have your ideas changed over time? What were aspects of co-design that were important?
- Keep track of how many people you have received feedback from. Was it a representative sample? Have you heard feedback from families, school staff, kids and community-based organizations? Who do you still need to receive feedback from?
- Do not shorten or skip this process. There are many considerations when designing an outdoor learning site and people interact with places in diverse ways. It is important to gather a wide range of feedback and suggestions.



Co-designing Places for Outdoor Learning Facilitation Guide

Design Engagement 7: Designing for Installation

Activity Purpose

Now that the group has imagined and designed future possibilities for the selected site and received feedback from community members, it is time to finalize the plan and prepare for installation. It is important to consider sustainability and longevity when finalizing the design. The group can prioritize phases by considering funding, and ongoing care and engagement of the site. The installation plans and requirements will vary based on your location and situation. This activity provides an overview of some broad considerations for installing equitable and transformative outdoor learning places.



Activity Overview

This is a four-part activity:

- » **Part 1:** Finalize the design and how the learning space will be supported/maintained
- » **Part 2:** Identify the necessary materials for installation
- » **Part 3:** Arrange site meetings and fill out necessary applications
- » **Part 4:** Finalize installation plan and invite the community to join!

Part 1: Finalize the design and how the learning space will be supported/maintained

Now that your group has gathered feedback from the wider community, incorporate the feedback into the design. There may be significant suggestions that require the group to rethink the design. If necessary, return to activity 6 and host additional design sessions.

As a group, finalize the design and identify how the learning space will be supported and maintained. Identify the various components of the design and decide which aspects are feasible at this time. The design may need to be installed in phases, over many years. Breaking the design into phases helps move the project forward in manageable steps, use Activity Sheet 7.A to record notes.

Considerations for prioritizing design phases:

» **Funding:**

- What do you need funding for? What are available funding resources for the outdoor learning place? What are ongoing expenses for the site?
- Does your design require a coordinator or a system of coordinating land management and education?
- Does your design require ongoing organized community support ie: volunteers, Community-Based Organizations, etc?
- If the cost of the design exceeds the budget and resources that are available, consider what parts of the design are priorities to implement now. If you are committed to the entire design, perhaps the implementation could be done over time. This may require decisions about which components are central to field-based learning at this time.
- Get creative about identifying free, affordable, or donated resources in the community.

» **Ongoing Care:**

- What are the maintenance requirements of your design? How will the site be cared for? By whom?
- What are the year-round learning opportunities that the design enhances? How is this connected to the ongoing maintenance that needs to be done?

» **Ongoing Engagement:**

- Outdoor learning places that are not connected to ongoing learning opportunities are often underutilized and end up in disrepair. Spaces that are used frequently and by many different groups are often cared for.
- Which aspects of your design promote ongoing engagement in the outdoor learning place?
- Which aspects of the design promote multiple ways to interact with the place? (classroom setting, family gatherings, after school clubs, stewardship opportunities, citizen science and Learning in Places storylines.)

Part 2: Identify the necessary materials for installation

Once a final design has been identified, use Activity Sheet 7.B to identify the necessary materials, tools and expertise that are needed for installation. If there are questions that the design team cannot answer, identify people from the community who may be able to help. This includes family and teacher expertise, Community-Based Organizations, and principal or administration support.

Part 3: Arrange site meetings and fill out necessary applications

Depending on your situation you may need to arrange site meetings with school grounds staff, district staff and/or school staff. Fill out necessary applications for school yard improvements (as required by the school, school district, neighborhood association, etc.)

Part 4: Finalize installation plan and invite the community to join!

Review any changes to the installation plan and finalize any remaining components. If your group plans to host an installation event be sure to invite families, Community-Based Organizations, and school staff to participate. Use a variety of communication methods such as posters, take-home flyers, email, school newsletter, robo-call announcement, meet-and-greet sessions at beginning and end of school day, etc. Not every family uses email. Make sure communication methods are translated.

Design Engagement 7: Designing for Installation

Activity Sheet 7.A:

Finalizing the Design and Prioritizing Design Phases

1. Identify the various elements of the design and decide which aspects are feasible at this time.
2. Use the table below to capture notes and decisions around the prompts on page two.

	Phase 1	Phase 2	Phase 3
Design Elements			
Funding			
Ongoing Care			
Ongoing Engagement			

Design Engagement 7: Designing for Installation

Activity Sheet 7B:

Planning for Installation

Guiding Questions:

- What are the elements that make up the design? i.e stump circle, woodchip area, etc.
- How will you install your design? Write out all the steps for installation.
- What tools and materials will you need? Where will you get them?
- What are the costs for the materials? Do they fit into the project budget?
- Who needs to be involved?
- What is the timeline?
- What questions do you have? Who in your community could help answer these?

Design (List out the components)	Installation Steps	Tools and Materials (include quantity)	Cost	Sources	Who needs to be involved and next steps	Purchase & Delivery Timeline
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EXAMPLE (your plan will likely require very different installation components and steps)

Log Seating Area • Circle of stumps • Woodchip area • Gravel to prevent stumps from rotting	<ul style="list-style-type: none"> • Measure square footage and calculate amount of woodchips and logs needed • Purchase logs, woodchips and gravel • Layout log round • Dig holes to stabilize logs • Fill holes with gravel • Install logs and pack around with gravel/drik • Surface with 2" woodchips 	Woodchips (2 yards)	\$150 + \$50 delivery	Local arborist	Juan will ask Lisa about woodchip donation	October 25
		Stumps (11 2' stumps)	free, donation	Neighborhood group	The Zhao family can donate stumps from fallen tree. Lucia will follow up to confirm pick up date	October 25
		Gravel (4 bags)	\$25/bag (10 bags = \$250)	Landscaping Supply Store	Oliver will pick up gravel.	October 25
		Shovels and Hard Rakes (2-3 each)	free?	school district has tool lending library	Tamar will call the tool lending library	Need for installation day (Oct 27)

Available budget: _____ Total costs: _____



Co-designing Places for Outdoor Learning Facilitation Guide

Design Engagement 8: Sustainability, Decision Making and Governance

Activity Purpose

Congratulations! The outdoor learning place has been installed or enhanced and will become an active learning space. The co-design group will now make one of the most important pivots from design to programming and maintenance sustainability. One key area of creating a sustainable program is identifying how decisions will be made, and what roles and responsibilities are needed. This final activity has the team beginning to build a foundation for ongoing decision making and sustainability in the outdoor learning place.

In the co-design process that you just completed, the group made many large and small decisions. By using the Rhizome, the group was able to continually address topics like power and historicity and nature-culture relations. As you move forward into learning, teaching, and managing the space, continue to use the Rhizome to keep power and historicity, nature culture relations, field-based science and other considerations present in the decisions and actions that are made.

As a co-design team, the group ideally has someone who will also be educating and using the outdoor learning place with students, families and communities. If no one from the co-design team will carry over, now is the time to identify and meet with the people who will. Transitions are inevitable in school outdoor learning and garden programs, and can often determine if a program can be sustained over many years. Documenting decisions and the co-design process will help pass along knowledge and history of the project and may help integrate new members in meaningful ways, as they join in the journey of teaching, learning, and managing the outdoor learning space.

Sustainability

One of the biggest challenges for garden and outdoor learning programs is their long-term success over many years. Decision making and governance are critical pieces for ongoing sustainability of outdoor learning place

Sustainability of the outdoor learning place has been woven throughout the entire co-design process. Co-designing with families, Community-Based Organizations (CBOs) and teachers ensures design decisions reflect how the space will be used. Place-design walks encourage designing with the unique affordances and challenges of particular sites. Designing for year-round field-based science learning opportunities promotes ongoing engagement in the place, by a wide variety of members. Identifying phases for the outdoor learning site helps design with funding and maintenance constraints in mind. All of these things support the long-term success of the outdoor learning place.

What are additional components for your outdoor learning space that are needed to promote its sustainability? Discuss this with the co-design group.

Activity Overview

This is a two-part activity.

» **Part 1: Summarize and document the co-design process:**

Documentation can be one way to pass along knowledge and history of the place. Having a well documented project can be one way to support transitions and to continually integrate new members in meaningful ways. Gather artifacts, notes and other documents from the co-design process. Documentation should include:

- Vision/Values
- Histories of Places research and sharing
- Maps of the site
- The final design idea, with identified phases
- Feedback from community members
- Photos of the site before and after installation
- List of partners
- Any other valued knowledge

» **Part 2: Identifying next steps for the co-design team:**

In a highly accessible format (such as a shared online document, powerpoint, or shared notebook), share the documentation from Part 1 with all stakeholders. As a team identify how decisions will be made, communicated and documented. In addition, identify how the various roles and responsibilities will be documented and shared. This ongoing documentation is necessary to support sustainability of your site. Combine these components with Part 1. These should include:

- Record of ongoing decisions (Activity 8.A)
- Lists of roles and responsibilities (Activity 8.B)



Designing for the next phase:

Designing and building an outdoor learning place is an exciting and big task, and it usually wraps up once the outdoor learning place is complete. The next phase is to create systems and structures that will help to keep the outdoor learning place maintained, along with organizing students, families and educators to help with this process. Annual food-for-human gardens often require more organizing and logistics, so you may need additional tools. Some systems that may help provide structures are:

- Record of ongoing maintenance
- Tool inventory
- Scheduling when classrooms use the outdoor learning place
- Volunteer organization

These tools are not part of this co-design facilitation tool, but there are many existing school gardening/outdoor education models that exist and are available to the public online, in printed curriculum, or at Community-Based Organizations. For some, the most challenging part of making the outdoor learning place a success is not the design and build of it, but rather sustaining the outdoor learning place over time as people come and go.

Using the Rhizome in the Co-design Process:

The following Rhizome prompts provide ways to routinely consider the core commitments towards creating more equitable outdoor learning places. The Rhizome foregrounds analyses of **power and historicity** and **nature-culture relations** as they intersect with the other parts of the Rhizome: **complex socio-ecological systems; field-based science; and culture, families & communities**. Use these questions as a way for the co-design group to keep all pieces of the Rhizome present during co-design.

Culture, Families and Communities:

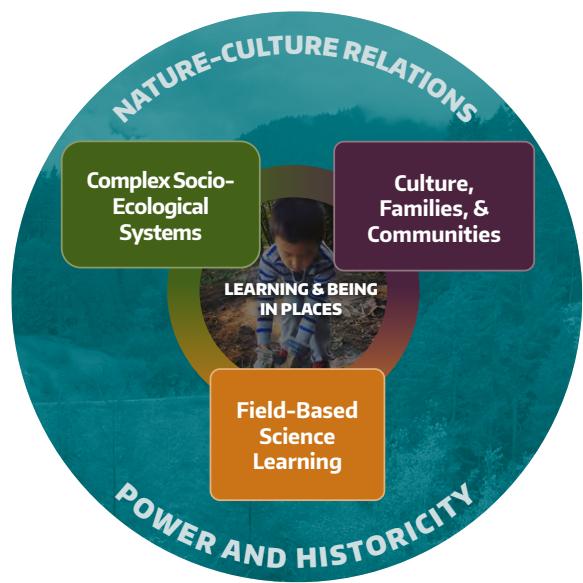
- » What is the role of the co-design team moving forward? Will anyone from the co-design team be involved in routine education, maintenance or other outdoor experiences?
- » How will families, community groups and organizational partners who were not part of the co-design process become involved and interact with this place?

Complex Socio-Ecological Systems:

- » How will learners continue to be supported in thinking about Histories of Places when they are interacting with the outdoor learning place?
- » Now that the outdoor learning place is installed, is it a fostering healthy ecosystem? What kinds of ongoing human and more-than-human relationships are needed to support this place?

Field-Based Science Learning:

- » The outdoor learning place can enrich many areas of learning, including science. How will interdisciplinary learning be facilitated?



Power and Historicity:

- » Who is this site for? Do they feel welcome? How do you know?
- » Who should have the power to make decisions in this place? Is there a single coordinator or a system of coordination that is held by multiple people? How will power be distributed?

Nature-Culture Relations:

- » The deeper the outdoor learning place is woven into the larger fabric of the school, the higher the likelihood is of a sustained relationship to place. A school outdoor learning place can promote “a part of” nature-culture relationships. How does the outdoor learning place intersect with and connect to the school community?



CONNECT TO OTHER LEARNING ENGAGEMENTS

- Classroom LE 10 bundle: Taking action on our “Should We” questions with family and community

LEARNING IN PLACES FRAMEWORKS TO CONSIDER

- Ethical Deliberation and Decision-Making in Socio-Ecological Systems Framework

Part 1: Decision Making

Use Activity Sheet 8.A to document ongoing decisions. Identifying who and how decisions will be made is a critical component in ensuring equitable and sustainable decision making.

ACTIVITY SHEET 8.A

Who is making this decision?						
What decision are we trying to make? Or what problem are we trying to solve?						
Option 1:			Option 2:			
Why do we need to decide?	What values are we using? How does this decision account for the vision of the outdoor learning site?	How does the place you are in impact your decision?	How does the natural world impact this decision? Why was this the best decision to make?	What options did we consider? Why was this the best decision to make?	Who else is impacted by the decision? How are they impacted?	How does the decision impact us in the future?
Who has the power to make this change / decision? Why?						
How will we communicate this decision? Who do we need to communicate this decision to?						
What is our final decision? Refer back to Option 1 & 2, or write a new option.						
What is our next decision?						







Who should have the power to make decisions in the outdoor learning place?

Will decision be made by consensus? or majority vote? or by appointed leaders?

Who will be responsible for upkeeping the documentation and communicating these decisions?

Decisions are likely to change over time with the dynamic nature of outdoor places. What will your process be for revisiting decisions? How will you keep track of the decisions?

Types of decisions you may need to consider:

- Scheduling:** when will people use the space? How will multiple classes learn and make decisions in the same place?
- Communication:** How will decisions/actions be communicated? (between classrooms, between after-school/during-school classes, between teachers-families, between school-wider community?)
- Planning:** How are we documenting planting and/or maintenance? Do we need a tool inventory?
- Governance:** Do we need a site coordinator? Is there a plan in place for when the outdoor learning site leadership changes?
- Fundraising:** Do we need to fundraise? Should we apply for grants? Who will manage the budget?
- Volunteers:** How are volunteers integrated into the outdoor learning place? (Sign-up sheets, expectations, onboarding, etc.)

Part 2: Roles and Responsibilities

Identify the ongoing roles and responsibilities that are necessary to reach the vision and goals of the outdoor learning place. A clear list of roles and responsibilities can make it easier for volunteers to coordinate and communicate. Ensure a diversity of people can contribute by identifying a wide variety of roles and ways to get involved. Make space for people to re-define or combine roles so they can identify meaningful ways to contribute. Also, it is necessary to plan for transitions as inevitably people will move on. These roles can be filled by students, families, community members, school staff, non-profit educators and/or contractors.

POSSIBLE ROLES AND RESPONSIBILITIES:

- **Teaching in the garden:** This could include older students, families, teachers, informal educators or community volunteers. This role includes teaching classes, supporting outdoor learning, gathering lesson supplies and communication. This role may include learning that happens in formal classrooms, after-school programs or informal family meet-ups.
- **Maintenance:** This role is centered around planning and supporting maintenance. This could include record keeping of a maintenance calendar, organizing work parties, planting plants, keeping track of inventory, ordering supplies, etc.
- **Organizing Volunteers:** This role could include recruiting, training, scheduling and retaining volunteers.
- **Funding:** This role could include managing the budget, purchasing supplies, identifying fundraising opportunities, tracking and organizing donations.
- **Research and Documentation:** This role could include the ongoing research and documentation of the outdoor learning site. This may include document changes to the site, taking photos, researching issues with plants (pests/diseases), listing location of plantings, researching the history of the site and recording stories related to the place.
- **Communication (internal):** Communication could include creating newsletters, updating bulletin boards, sending emails. They would be responsible for sharing out the history, vision and documentation of the garden; as well as contacting and inviting families, teachers, Community-Based Organizations to be involved with the school learning garden.
- **Networking (external):** The role would focus on forming partnerships with other schools with outdoor learning sites, Community-Based Organizations and/or neighbors to identify opportunities for collective land management practices and share best practices. This could include joining or leading a school garden network.
- **Policy:** This role would focus on adherence to school or district level policy around outdoor learning places. This role would also advocate for policy changes when needed.
- **Overall coordination:** This role helps with connections and ensuring that the different parts function together. This could be a single point person or a system of coordination that is held by multiple stakeholders. This role could be paired with other roles such as communication, policy, etc.

ACTIVITY SHEET 8.A

Who is making this decision?									
What decision are we trying to make? Or what problem are we trying to solve?									
Option 1:		Option 2:							
Why do we need to decide?		What values are we using? How does this decision account for the vision of the outdoor learning site?							
How does the place you are in impact your decision?		How does the natural world impact this decision? How is the natural world impacted by this decision?							
What options did we consider? Why was this the best decision to make?		Who else is impacted by the decision? How are they impacted?							
How does the decision impact us in the future?									
Who has the power to make this change / decision? Why?									
How will we communicate this decision? Who do we need to communicate this decision to?									
What is our final decision? Refer back to Option 1 & 2, or write a new option.									
What is our next decision?									

ACTIVITY SHEET 8.A EXAMPLE

Who is making this decision?

We are a small group that includes 2 teachers and 1 family member.

What decision are we trying to make? Or what problem are we trying to solve?

Each classroom is purchasing their own garden supplies. We need to decide if we want to purchase supplies together.

Option 1:

We could purchase supplies together by creating a google doc that lists all of our supplies and how to source them. We could send out an email to all the teachers, families and CBOs asking for a supply list.

Option 2:

Each classroom can continue purchasing their own garden supplies.

Why do we need to decide?	What values are we using? How does this decision account for the vision of the outdoor learning site?	How does the place you are in impact your decision? How is the natural world impacted by this decision?	What options did we consider? Why was this the best decision to make?	Who else is impacted by the decision? How are they impacted?
<i>When each classroom buys their own supplies some classes have a lot of supplies, other classes don't have as many. There might be supplies that overlap that we could share.</i>	<i>We value collaboration and our vision is for year-round field-based science for all learners and their families.</i>	<i>We have 8 raised bed gardens at school, 1 pollinator patch but do not have a shared tool shed. We have five classes that use the garden weekly for science and one afterschool club.</i>	<i>We considered having each class continue to purchase their own supplies and we considered buying supplies together.</i>	<i>By buying supplies together we are saving money and resources. This could help in the purchase of a shed in the future.</i>
Who has the power to make this change? Why?	The teachers have the power to make this change, because they are the ones that organize the purchasing of supplies currently. We wonder what decision making role students and families could have in the future.			How does the decision impact us in the future?

How will we communicate this decision? Who do we need to communicate this decision to?	We need to communicate to all of the teachers at the next staff meeting. We should put a blurb in the newsletter that lets the school community know and we should call the afterschool club to discuss with them.
What is our final decision?	<i>The teachers will purchase supplies together, using a google doc to organize. These supplies will be shared with the afterschool club.</i>

What is our next decision?

- How can students and families be more involved in decision making in the garden?
- Who will purchase the supplies?
- How will they be shared amongst 5 classes?

ACTIVITY SHEET 8.B ROLES AND RESPONSIBILITIES

	Role	Responsibility	Name	Date Started	Transition Plan?
EXAMPLE	Teaching	Maria will co-teach with Mrs. J in the garden on Wednesday mornings	Maria Johnson	Sept 15	Maria has committed to one year
	Research and Documentation	a team of four 6th grade students are recording a podcast about the garden and forested area by school for a social studies project	four 6th grade students	October 15-November 15	this is a one time project, no transition plan
	Maintainence	Ray will lead a spring and fall work party in collaboration with Mr. W's fifth grade class. Ray will also keep track of inventory and ordering supplies.	Raymond Anderson	Sept 25	Raymond has committed to two years

Appendix A: Timeline for Co-design

Timeline for Co-design:

There are eight different design engagements in the Co-designing Places for Outdoor Learning. Each activity has a suggested time allotment, though this will vary by group. Some groups may want to meet more frequently and do one Design Engagement (DE) per session. Other groups may prefer to meet fewer times with longer sessions to complete multiple DEs. Whatever option you choose, it is essential to complete Histories of Place (DE 1) and Vision and Values (DE 2.) There are many ways to schedule and arrange times to complete these DEs as a co-design team. Here are two examples of how the activities could be arranged:

Situation 1:

Meeting weekly or bi-weekly for a total of 8 sessions. The team would complete one design engagement per session, the sessions would range from 45 minutes to 1 hr 30 minutes.



Figure 1: This co-design team met every second week for 8 weeks (blue). They conducted outreach in small groups at the beginning and middle of the process (purple).

Situation 2:

Meeting once a month for four months, for a total of 4 sessions. The team would complete multiple design engagements per session, the session would range from 1 hr 30 minutes to 2 hr 30 minutes.



Figure 2: This co-design team met once a month in a series of longer meetings. They arranged four different sessions to meet as a whole group (blue). They also conducted outreach in small groups and independently (purple). They decided to do the Place Mapping (DE 3) as a take home activity, because they wanted to complete the activity with neighbors (orange).

Centering Equitable Garden Practices:

- **All places have historical contexts:** gardening is often seen from ahistorical perspectives. Surfacing the histories of places is an important step to help students realize that all places, including gardens, have ongoing histories, past, present and future.
- **“Histories” are ongoing:** it is very easy for students to assume that, because we are talking about timescales as “histories,” they are in the past. We are trying to understand timescales as ongoing -- with histories but also futures. This is why the “living ethical possibilities and responsibilities time” is a timescale that cuts across all timescales, so that we can start to imagine futures for lands, waters, plants, animals, soil, indigenous people, nation-states, and/or the world on a global scale.
- **“De-settle” your own ideas about place and Indigenous peoples:** History is often taught in a way that (1) completely invisibilizes Indigenous peoples, (2) romanticizes relationships between Indigenous peoples and settlers, and/or (3) makes it seem as if Indigenous peoples no longer exist. Educate yourself about what Indigenous lands your school sits on, which Indigenous nations are your school’s neighbors, and how Indigenous practices influence the places, science, and stories of the places where you live and work. Doing this work is an important step in supporting your students to think within and across timescales about complex socio-ecological systems.
- **Continuously support the co-design team in thinking about histories of the places** they are learning about and studying: Throughout the co-design process, continuously ask important Histories of Places questions.
- **Encourage more-than-human perspective taking:** Gardens are often designed in terms of what is useful for humans. In order to design equitable outdoor learning places, the co-design team should be supported/encouraged to take the perspective of more-than-humans in natural systems. How is this decision good for the tree? How is the place good for the worm? For the soil?
- **Encourage human connections to ecosystems:** It is commonly assumed that humans are bad for natural places and human engagement should be restricted. For example, human interactions with natural places in National Parks is often quite restricted. Gardening can be one way to illustrate helpful human relations in the natural world. Humans can garden in ways that promote healthy ecosystems and in ways that are mutually beneficial to other organisms. How can the garden design make visible this complex interdependence?
- **Places communicate values:** Gardening in cities is not neutral; garden design communicates who is welcome and who is not. Where are gardens located in your city? What values are communicated in these spaces? Who has access to these places? Who is welcome in these places? How is gardening happening in limited green spaces?
- **Make visible and reflect on decision making:** Various people have made decisions about the land you are on: regulations, laws, and rules have impacted the ways humans relate to the land. Make visible the types of governance that impact garden decisions during the co-design process. Critically reflecting who will make decisions in this place is crucial for equitable garden design.
- **Connect to people's lived experience:** Agriculture is a human practice that has been evolving all over the world for thousands of years. All cultures have agricultural practices. Co-design from multiple cultural and value systems so that certain kinds of garden designs are not assumed. Also consider how humans and more-than-humans cultivate land together, as well.

Appendix C: Instructions to create a bird's eye view Google map

Instructions to create a bird's eye view Google map:

Create a map:

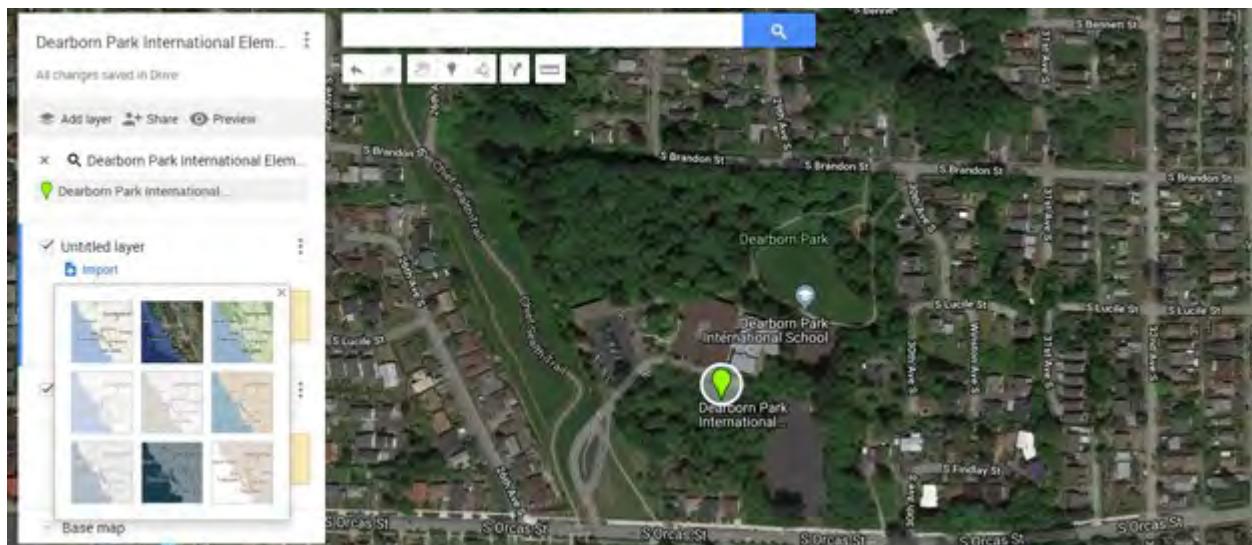
1. On your computer, sign into My Maps (<http://mymaps.google.com>)
2. Click create a new map
3. Go to the top left and click "Untitled map."
4. Give your map a name and description.

Change how a map looks

1. On your computer, sign into My Maps (<http://mymaps.google.com>)
2. Open a map you can edit or create a map
3. Next to "base map" in the bottom of the left panel, click the Down Arrow.
4. To choose a style by clicking of the images. Try the styles 'terrain', 'satellite' and/or 'map'.

Make a poster of the map by printing out the image on multiple pages:

- Tiling documents is a cheap alternative to printing out large posters at professional printing stores
- Tiled printing is when you print a large image over several pieces of paper. After printing the pages you can line up the 'tiles' and tape them together creating a large poster.
- Certain applications such as Publisher, PowerPoint or other graphic applications tend to have settings for tiled printing. You may need to look up specific instructions on how to print tiled images based on your version of the application.



Example of selecting the satellite view option from the "Base Map" drop down menu - Image of Dearborn Park International Elementary and surrounding neighborhood.

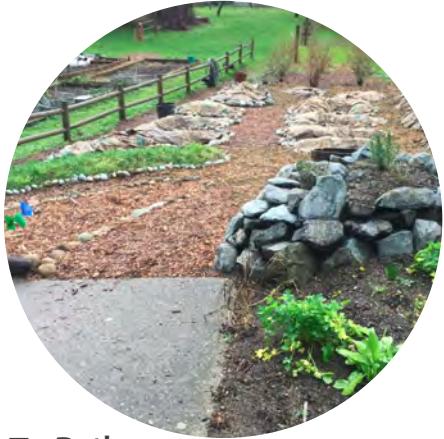
Part 1: Redesigning with Existing Outdoor Learning Sites

Many schools have existing outdoor learning places. It is important to consider how these sites may be redesigned or incorporated into the new outdoor learning place. Take some time to check out the outdoor learning site(s) and what has (or not) been installed, built, guided, or planted by people. Use the prompts to document what structures and features are present, what their use is, how they are managed and what condition they are in. If you have multiple types of outdoor learning sites, use the prompts in each of the sites and make one overarching map that includes the location of each of these sites.

- Is the outdoor learning site well kept? What indicators are you using to make this assessment?
- Is the outdoor learning site accessible and inviting? For whom? What makes it accessible? What makes it inviting?
- Is the outdoor learning site(s) close to a thoroughfare or common area, or not?
- If there is more than one, how are the outdoor learning sites arranged? Are they grouped together, or spread apart?
- What structures or features are present? (document on the next page, or draw a map)



Appendix D: Redesigning an Existing Site Part 1 continued



Pathways

- Are they well kept? Accessible?
- Are they permeable (such as a path with gravel or mulch and soil), or impervious (like a concrete path)?



- Structures:** tool shed, greenhouse, arbors, permanent trellis, fences
 - In good working condition?



Access to water:

- Hose bib, irrigation system, water catchment (rain barrel, etc)
- Is there water access to the site?
- Is it easily accessible to everyone?
- What is the distance to planting areas?



- Compost systems:** leaf cages, worms, yard waste composting
 - What kind(s)? Are they active?



Art and signage:

- information signage, kiosks, paintings, sculptures, sound installations
 - What kinds of signage is present?
 - What kinds of art installations or projects are present?
 - Who was involved in making the art?



- Gathering areas:** tables, benches, seating, covered areas
 - How many students can it accommodate?
 - Is it accessible to all abilities?



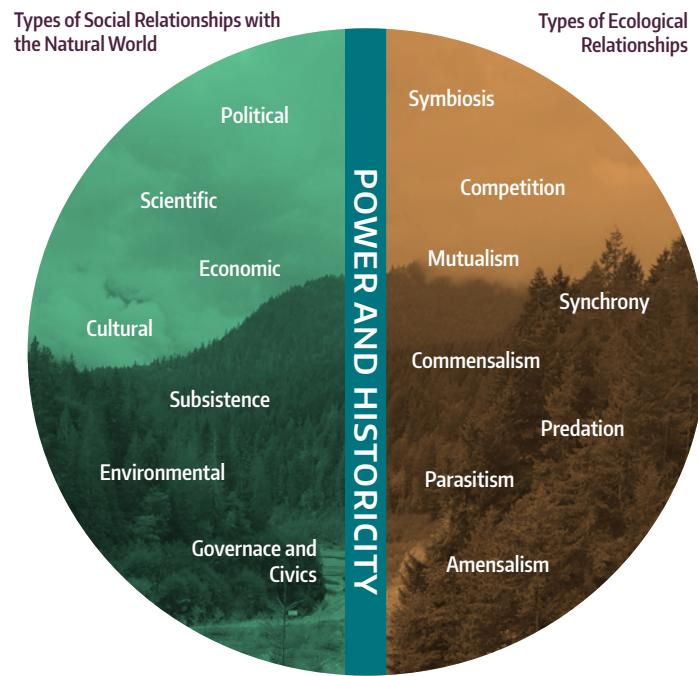
Planting Areas:

- Raised garden beds, in-ground garden beds, forested areas, etc
 - How many?
 - What are they constructed of?
 - Other planting areas: planters, pots, troughs, other containers

Appendix D: Redesigning an Existing Site

Part 2: Human Decision Making in Existing Learning Sites

Once you have assessed the structures and features in existing learning sites now is a time to reflect on the types of relationships in those garden systems. Read the Relationships in Socio-Ecological Systems Framework found at learninginplaces.org and consider the prompts below:



Social Relationships in the Garden:

- Who can access the garden? When can they access it?
- What kinds of rules exist for types of trees that can be planted on the school ground? Are there sight line rules? Are there school design requirements for open expanses of turf?
- Who manages these places? What is the current decision making structure?
- What kind of aesthetics are represented? Where have people expressed creativity through art or color?
- Does the learning site have an environmental purpose (does it prevent soil erosion, or watershed care, or provide pollination resources?) Is there ongoing documentation or multi-year planning?
- What are the rules, regulations and ordinances for this place (school level, district level, city ordinances)? How does that impact the type of gardens that are grown here?
- Are there land-use agreements that exist for these learning places?

Ecological Relationships in the Garden:

- What kinds of ecological relationships are present? (for example: a spider building a web on a plant to catch flies, birds eating worms out of a compost pile, one plant growing up another plant, etc)
- How are those ecological relationships impacted by the types of social relations that are present? How are the social relations impacted by the ecological relationships present?

Appendix E: Site Design Ideas

Outdoor Classroom Design Ideas

There are many resources that detail different design elements that you may consider for your outdoor classroom. Below are three resources that provide great illustrations of design elements and further considerations for designing outdoor learning places. There are many other books and online resources!

- The **Boston School Yard Initiative** ([schoolyards.org](http://www.schoolyards.org/pdf/OCDesignGuide.pdf)) has an Outdoor Classroom Design Guide offers photos to illustrate examples of design elements that may be used in the design of an outdoor classroom.
(<http://www.schoolyards.org/pdf/OCDesignGuide.pdf>)
- **Education Outside School Garden Resources** through **Life Lab** (lifelab.org/for-educators/schoolgardens). There are inspirations pictures of site elements in the **top 10 infrastructure element for outdoor classrooms** (https://drive.google.com/file/d/1rWfWFjguMBtjwRcxYgWVDJ5kH2i_smtL/view)
- **Seattle Children's PlayGarden** developed a **Disability Inclusion tool-kit**. In particular, section 1 (page 8-32) describes ways to make parks and playgrounds a welcoming experience for all kids. ([https://childrensplaygarden.org/portfolio/inclusion-toolkit/](http://childrensplaygarden.org/portfolio/inclusion-toolkit/))

Outdoor Classroom Design Guide

BOSTON SCHOOLYARD INITIATIVE

