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 time with longer session 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).







Appendix B: Centering Equitable Garden Practices

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:

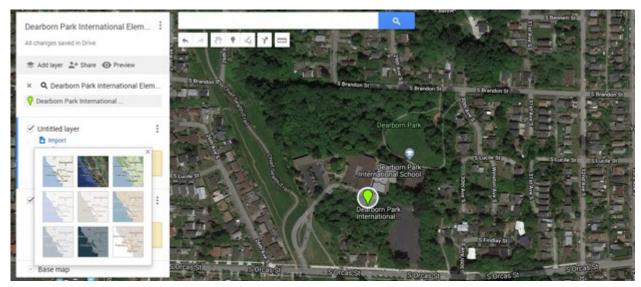
- 1. On your computer, sign into My Maps (http://mymaps.google.com)
- 2. Click create a new map
- 3. Go to the top left and click "Untitled map."
- 4. Give your map a name and description.

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 accesible? 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)?



- □ 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?



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



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



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



- ☐ 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?



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



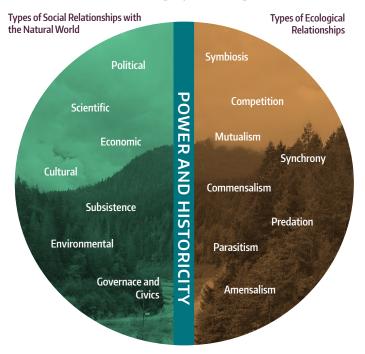






Part 2: Human Decision Making in Existing Learning Sites

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?







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) 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)
- Outdoor Classroom Design Guide BOSTON SCHOOLYARD INITIATIVE



- 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)
- THE TOP 10
 A Francisco
- 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/)







