

Lesson Snapshot

Week 1 – Introduction to the Garden Community.

The garden is a habitat filled with **living** and **non-living** things that exist in a **community**, just like us! We will tour the garden, record interesting **flora** and **fauna** in **Nature Journals** along with **observations** about environmental factors like date, time, **season** and location of sun. We will take this opportunity to learn more about our community by asking important questions. Who has lived here? Who tended this land before us? What is the **history** of this specific neighborhood? Interview school alumni to understand school history. Did they have a school garden? What used to grow here? Who lives here and what grows here now? What do you grow at home or any place you've called home? How have you adapted? Just like the **soil** beneath our feet, our community is beautifully **diverse** and stronger because of it.

Week 2 – Gratitude.

From the **Indigenous Peoples** – the Haudenosaunee, the original caretakers of the land in upstate New York and Canada – we learn of the **Thanksgiving Address**. These are words with many layers; we will learn it piece by piece to establish a culture of gratitude – for the **water, plants, air, animals, trees, and seasons** – in our school learning garden. It is with these tools for learning that children understand why it is necessary to care for, plant and water our garden with intention. Children will study **soil**, one of the most **complex communities** that exists! Using all senses, children will take a closer look at soil. Does soil look and feel the same everywhere? Why or why not? What is *this* soil made of? Let's predict what the soil might look like somewhere else (ask students what the soil looks like in the countries or regions they or their parents have lived). Begin discussing **garden planning** and examine seed packets. Introduce the origins of the food we eat – hard to believe but most food can be traced back to **seeds**. Allow students to share foods that are important in their kitchens and in their **cultures**. What will/can we grow in our garden?

Week 3 – Planning and planting.

Revisit discussion points around community, climate and land from Week 1 to begin planning for our garden. This is an opportunity to get specific 'requests' for **culturally-relevant foods and planting practices** – this will be different for every school community! Show pictures of gardens from around the world. Walk around the **school learning garden** as well as the entire **schoolyard**. What does a **healthy habitat** for **native insects and flowers** look like? A garden is more than food for humans. Ask students to name a few favorite insects, discuss reasons why they are so important in our habitat (bug hunt to come later when discussing pollinators). Take measurements of the planting areas and calculate the number of seeds or seedlings needed. How do each plant's needs – space, soil conditions, water - differ? Are edibles always planted in rows like in many pictures you see? What can we learn from the **indigenous peoples** of this land about how they grew and cultivated food? How can we offer our gratitude to the indigenous peoples to whom this land once belonged? Let's name them. **Tunxis. Sicaog. Wangunks**. This will 'plant the seeds' for an age-appropriate **land acknowledgement**.

Week 4 - Garden companions.

As we plant seeds and seedlings in our garden spaces, we can study the concepts of **competition and cooperation**. What growing conditions do plants prefer? Do all plants have the same needs? Plants are just like us, they need **nutrients, water and sunlight and space**. Experiment by setting aside a small section of the garden where we let weeds – **what is a weed?** - grow and monitor how this affects the growth of neighboring plants. Some plants we intentionally grow together because they are companions. We will

grow a **three-sisters garden** and study the indigenous cultures from whom this knowledge came right here on this land. Discuss how these seeds are planted at the same time but grow in different yet complimentary ways – they grow better together. Why? What is a **monocot vs. dicot**? What is the unique characteristic of a **legume (bean)** that allows them to ‘fix’ soil. What can we learn from these ‘sisters’? Can anyone offer examples of **companion planting** from their culture(s)?

Week 5 – Our water and watershed.

While it seems we are surrounded by water, the amount of fresh water we have access to and on which we depend is a **‘Drop In the Bucket’** (play this well-known game that helps demonstrate water scarcity). The water we drink is the water of dinosaurs constantly being recycled. Discuss **water scarcity from around the world** and focus on regions and countries familiar to students. How does this affect their lives? The **water cycle** – through **evaporation, condensation, precipitation, transpiration**, etc. - is working constantly to renew our supply of water turning water vapor from oceans into fresh water which supplies our insatiable demand. Ask students to reflect on their day and guess how much water they **consume** (food, clothes, production of everything in their home)? It may not seem obvious but every time we throw uneaten or scrap food into the garbage can we are wasting water. What about the farm and the factory that produced your clothes – do they need water? Yes, a lot. What happens at the end of the lifecycle – disposal. Looking around the schoolyard and neighborhood. Do you see anything that might affect/**pollute** our water supply (dog poop, litter, oil slicks, pesticide signs, soaps, cleaning products)? We now know just how precious and limited our water supply is – and we are the lucky ones here in Connecticut! **What actions can we take in our garden, school, and communities** to make a difference?

Week 6 – Food, you are what you eat!

Do you love to garden? No? Maybe it’s not your thing – too hot, dirty, stinky, or buggy. Do you like to eat? Yes? Then gardening is your thing. Learning how to **grow your own food is empowering and offers children a sense of agency**. Invite students to share their favorite foods and help connect them back to plants. Emphasize and **uplift voices from cultures outside of West Hartford**. This is another opportunity to discuss the **reciprocity** of taking food from the earth and offering gratitude in return through care and **stewardship of land and garden**. Explore the basics of the parts of a plant by **inspecting roots, stem and leaves**. Plants are food factories just like the one that makes your favorite bag of chips except plants require only gifts of nature (**review plant needs - sunshine, air, water and soil**). Examine with a **hand lens the cross-section of a stem** and leaf to **identify chloroplasts, xylem, phloem, stomata**, etc. We know plants are essential to all life but this gives students a chance to understand exactly how they use sunlight to make sure – **photosynthesis!** Discuss the food chain and our role in it. How do our decisions about what we eat impact the world around us?

Week 7 – Advocacy, taking action to create change in our community.

Do you believe everyone should be able to eat healthy, fresh food if they wanted to? Discuss the difference between a **‘right’** and a **‘privilege’**. Have you enjoyed spending time outside in the learning garden? **Did you feel welcome here?** Do outdoor spaces like parks and gardens need to be more welcoming and inclusive in our town? With the knowledge that you have gained about the origins and history of the land, diversity of our food and ecosystems, and the accessibility of food and green spaces in our town, what are some ways we as a community can make meaningful change to ensure all our gardens and outdoor spaces are **culturally representative and inclusive?** Let’s reflect on access to fresh, healthy food. Have you ever been to a **farmer’s market** here in town or has your family ever purchased fresh produce from a local farm through a **CSA** (community supported agriculture) program? What conclusions can we draw about who truly has access to these important resources? Can you name any farmers that supply these delicious fruits

and veggies? Are any of these farms own by people of color or women? Why so few? Has it always been this way? This week we will discuss the concepts of privilege and access and ways we can take small steps in our community to challenge and disrupt spaces and systems.

BONUS Week – Pollinator pathways, how can nature so beautiful?

We don't usually associate a kitchen (edible) garden with flowers but every plant that produces 'fruit' (aka fruit, cucumber, tomato, squash, more) typically has a flower that needs to be pollinated. Let's take a close look at **flowers and identify the reproductive parts**, how pollination works and what is needed for successful pollination. Can you name a **pollinator**? Understanding how even the 'scariest' of **insects** do wonderful things for our environment and our **food supply** can turn the most skeptical of students. **Slow down, tour the garden, and observe and identify insects.** Take a really close look and help students understand their fears and feel good about overcoming them, if any. Discuss **insect and bird adaptations**. Students should begin to understand that nothing is random in nature. What is an **adaptation**? Example, hummingbirds are attracted to red-ish flowers and have adapted with their long beaks to reach nectar in these deep, tube-like shapes. How can we make our garden and schoolyard a **welcoming place** not just for all humans in our community but all living things in our community - our garden animal friends like bees and butterflies? Tour the schoolyard again and **take action to create this welcoming space**: make a plan to plant native flower beds and provide 'food and housing' when or if appropriate for our non-human garden friends.

In creating a welcoming space for all living things at our school learning garden, we end where we began. Dig deeper with us next Fall as we explore composting, worm composting, trees, seed saving and more!

Important Resources:

- <https://kidsgardening.org/curricula-the-growing-classroom/>
- <https://native-land.ca>
- *Learning Gardens and Sustainability Education: Bringing Life to Schools and Schools to Life*, Dilafruz R. Williams & Jonathan D. Brown, copyright 2012, by Routledge.
- *You are the Earth*, David Suzuki, copyright 2010, by Graystone Books.
- *Gardening With Children: Brooklyn Botanic Guides for a Greener Planet*, Monika Hannemann, Patricia Hulse, Brian Johnson, Barbara Kuland, and Tracey Patterson, copyright 2007, 2011, by Brooklyn Botanic Garden, Inc.
- *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*, Carolyn Finney, copyright 2014, by University of North Carolina Press.
- *Braiding Sweetgrass*, Robin Wall Kimmerer, copyright 2013, by Milkweed Editions.
- *I AM FARMER: Growing an Environmental Movement in Cameroon*, Baptiste & Miranda Paul, copyright 2019 by Millbrook Press.
- *The Thing About Bees: A Love Letter*, Shabazz Larkin, copyright 2019 by Readers to Eaters.