SEEDS Curriculum | What, Why, How
Growing gardens, growing minds

When a young child’s innate curiosity is unleashed in a garden the possibilities are endless. Any topic is open for exploration. The garden classroom is active and dynamic—in harmony with young minds. A garden provides a child a place to belong, to explore, and to be loved.
Guiding Principles

You will get dirty.
Things may not go as planned.
There will be bugs.
There might not be electronics.
Learning, though not always visible, is happening.
The Layout

- **Three Age Groups**
  - **Tiny Gardeners**: Infants – Toddlers
  - **Growing Gardeners**: PreK – K
  - **Garden Guides**: 1st – 3rd

- **7 Topic Areas**
  - Soil
  - Air
  - Water
  - Plants
  - Sun
  - Critters
  - All About Me
SEASON | Topic: ex. Plants
Lesson Title: ex. Growing in the Garden

Summary: ex. Students will have the opportunity to build, create, and test xyz.

Each visit has three distinct components: pre-visit preparation, the garden visit, and post-visit community follow-up

Pre-Visit Planning: What to bring and where to find it

Gather: Tools to explore, demonstrate, or create with as part of the lesson
Explore: Primary source material to complement the lesson (ex. a painting/print or natural history object such as part of a honeycomb)
Read: A book, poem, or song available via the Internet or local library

In the Garden: What to do and when to do it

i. Big idea: (ex. Architects often take their inspiration from the world around them.)
ii. Questions to explore
iii. Activity: lesson concept in action
iv. Summary: what we learned and how we can continue to grow the garden

Beyond the garden | Exploring XYZ theme all over the neighborhood

The whole world is our classroom. Things we explore in the garden can also be explored around town. This section allows caregivers and educators to bring the tools and techniques used in the garden to the child’s neighborhood creating wider webs of concept knowledge and connection to the worlds children inhabit.

Continue Exploring | Supporting Materials

Websites, community centers, and other sources to continue exploring lesson topics and concepts.
Guiding Questions

- What season is it in the garden?
- What skills can we practice?
- What content would you like to explore?
- Who or what would you like to bring to the garden?
- What are possible outcomes from this visit?
- Where could you go after you leave?
- Where can you find other gardens?
Grant Funds
Evaluation Rubric

Big idea: Growing families as advocates for gardens: using the garden as a context for the adult to facilitate all sorts of engagement for children.

- **Affective:** Increase comfort and confidence in the garden
- **Cognitive:** Outcomes/levels of knowledge. Adult gains increased understanding of how to facilitate learning in garden settings
- **Behavioral:** Practice life skills

Using the adult/parent as a facilitator is unique to this program, and drives the evaluation thinking.

**Evaluation Framework:**

- What is the transferability of the learning through the program
  - What is seen as transferrable
  - How do adults use the skills elsewhere
- What are the life skills gained (perceptual measure) through participation in the SEEDS program?
- What works in the program and what doesn’t work?
- Do the adults see value in the program? How do values tie to intention to continue?
- How do the evaluation findings triangulate with the use numbers?
Break
- Narrate—put words to their experience
- Imitate
- Present multiple exposures over time
- Support their interest by observing it but resist the urge to immediately step in and assist
SUMMER | Critters

Hide & Seek: Butterfly Camouflage

Summary: There are many critters busy at work to keep our plants healthy in our gardens. They are small, though, and are often camouflaged. Today we're going to practice finding little creatures in the great big world.

Pre-Visit Planning:
Gather: A green blanket, a magnifying glass
Explore: Shantavia Beale II by Kehinde Wiley: Can you find the lady in the painting? Does she blend in with the background? Also consider bringing images of butterflies blending in with various plants.
Read: Butterfly, Butterfly: A Book of Colors by Petr Horacek

In the Garden:
Butterflies help keep the plants in our garden healthy by helping move pollen between plants. Often times we don't even see them because they do such a good job of camouflaging themselves in the plants around them. Camouflage helps keep our pollinators safe by helping them blend in and hidden from predators.

Questions to explore:
- Can you find any butterflies in the garden? How many are there?
- What color are the butterflies? Use your magnifying glass to look closer.
- What color are the flowers around the butterflies?
- Do the colors on your clothing match any of the plants in the garden? Or the colors of a butterfly?

Play a game of “camouflage and seek!” Wrap your tiny gardener in the green blanket and bring them into the garden. Have your gardener stand next to one of the green plants in the garden. Can you see them? Have them describe what it feels like to be camouflaged, and discuss what it might feel like to be a camouflaged butterfly. Would you feel braver? Like you could get away? If they are able, have your gardener find a new spot to hide, and go search for them. Do they like being camouflaged?

Beyond the garden | Visit a Theater
One form of camouflage is costume! Visit your local theater and take in a play. Talk about how the actors camouflage themselves to become other people and tell a story. Can you put on a play at home?
Shantavia Beale II, by Kehinde Wilde
Toddler Tips

- Observe and follow their interests (moving from imitation to participation)
- Ask questions that can be answered with yes/no or pointing for the youngest toddlers
- Provide large manipulatives such as a garden rake with a thick handle
- Make connections between new concepts and familiar ones
Pre-K - K | Tips

- Repetition: It may seem like children in this age group are intentionally ignoring you or forgetting something you have told them. Chances are, they just need a little more repetition for it to sink in.

- Listen to what they have to say, and then elaborate on it. Ask questions that will further their thinking.

- Allow for and encourage independence.
Break for Behaviors!

- Tantrums
- Chaos

- Distraction
- Adult Disengagement
SUMMER | Critters

Pollinators: Bees & Butterflies Working Together

Summary: Bees and butterflies are some of our plants' best pollinator friends. They work together to help spread pollen that can fertilize our fruits and veggies helping them to grow. Today we’re going to practice teamwork in a pollinator inspired field day.

Pre-Visit Planning:
Gather: Bring an old shoe, or something you can use to mark parameters for a race
Explore: Photographs of butterflies, bees, and maps of migration (or, bring along molded plastic models or plush versions if you have them on hand!)
Read: Butterflies in the Garden by Carol Lerner

In the Garden:
In the garden, bees and butterflies both work as pollinators, spreading pollen to from male to female parts of flowers, to help our plants reproduce and grow. Bees are able to move with like tiny fighter planes from flower to flower since their small, compact bodies allow for sleek maneuvers. They have agility but they have to move at shorter distances from flower to flower. Butterflies, on the other hand, are built more like cargo planes. They can go farther distances and spread pollen in wider areas due to their body design. Both short and long distance pollinators are important to keeping gardens growing.

Questions to explore:
- Examine a bee body. What do you see?
- Examine a butterfly body. What do you see?
- How are bees and butterflies the same?
- How are they different?

After spending a bit of time discussing the differences in body type, and how that would figure into the different jobs of bees and butterflies, find an area of grass next to or near the garden. Using your old shoe, or anything else you would like to mark as a finish line, set up a shorter and a longer course for your gardener to run. See how fast your gardener can sprint down the shorter track, and how fast it takes them to run around the longer track. Make a relay race if you would like, or even an obstacle course. Work together to find ways to make it around the tracks at different speeds in different ways. If you have a group, have the gardeners run a relay. Split the group into bees, sprinters, and butterflies, distance runners.

At the end of your field day, talk with your gardener about what it was like to run or sprint the different distances. How did they feel during or after each race? What did they notice about their heart rate? How did they work with you or their friends to make the experience more interesting? How did working together help? Have a discussion with your gardener about how this relates to the experience of the bees and the butterflies as they use their different bodies and abilities to pollinate in the garden and beyond.
Beyond the garden | Mail + Monarchs

It may seem like an odd comparison but your mail carrier works a bit like a pollinator; every day they bring important information to and from different people. Just like pollinators have migratory patterns—short and long routes—so too do mail carriers. Visit your local post office and see if you can talk to a mail carrier about how letters and packages move around your neighborhood and across the country!

Continue Exploring | Supporting Materials

Pollinator Resources: https://www.nwf.org/Pollinators.aspx

Pick three relay races and host a neighborhood field day: http://pbskids.org/zoom/activities/games/
Butterfly Migration Map
Ask questions that invite conversation

Listen to them, share and comment on their knowledge

Challenge them to slow down and focus on a task or challenge—make it a game

Challenge them to consider the feelings and perspectives of others
Final Thoughts

Preschool is seed starting—you’re creating the environment where a young mind has the best chance of becoming a viable plant with all the nutrition, skills, and hardiness it will need for the school seasons ahead.

Don’t over-plan: the experience is often the curriculum.

Do prepare to narrate: particularly for young learners you are putting words to their experience.

Don’t forget the 1000 environmental factors that are affecting a child’s ability to learn: Am I hungry, tired, cold, feeling big feelings?

Do pay attention to the interest and emotional tenor of each child; sometimes a caring connection is the most important result of a lesson.
Partner Problem Solving: Teacher Talk
Evaluation + Documentation
Evaluation Rubric

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Types of Documentation + Evaluation

- Surveys
- Photos
- Stories
- Focus Groups (Community Potlucks!)
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