



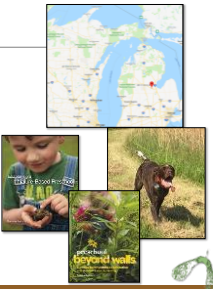
Nature-based Learning Environments: What Every Early Childhood Program Leader Needs to Know

Rachel A. Larimore, Ph.D.
Chief Visionary of Samara Early Learning

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A bit about me...

- o Nature-based early childhood education consultant with Samara Early Learning
- o Author of *Establishing a Nature-based Preschool & Preschool Beyond Walls*
- o Founding director of Chippewa Nature Center's Nature Preschool in Midland, MI
- o Grew up on a vegetable farm in central Illinois surrounded by biologists, botanists, & general outdoor enthusiasts



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Today's Agenda

1. Why nature?
2. What is Nature-based Early Childhood Education (NbECE)?
3. Preparing the physical environment
 - Inside
 - Outside
 - Beyond
 - Supporting spaces



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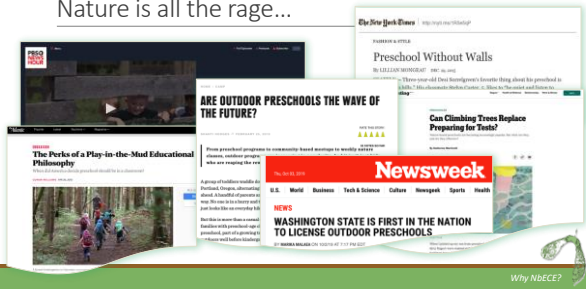
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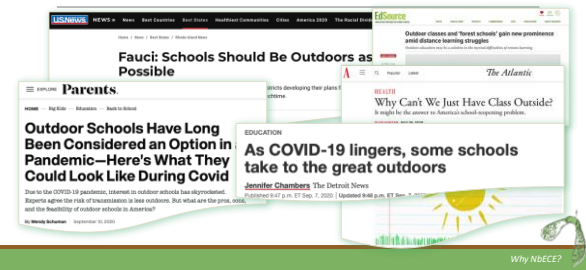
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Nature is all the rage...



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Even more so now...



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Nature is Necessary for Healthy Development

- o **Physically**—balance; coordination; active; illness recovery; myopia prevention
- o **Cognitively**—engaging all of the senses; creative thinking; better concentration
- o **Socially & Emotionally**—problem solving; interacting with peers; ability to handle stress
- o **Spiritually**—connecting to something bigger than themselves
- o **Building lifelong stewards!**



Why NbECE?

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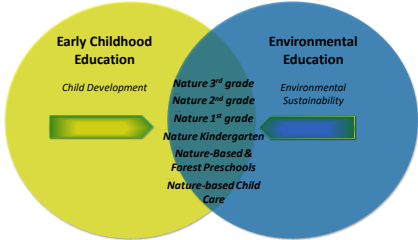


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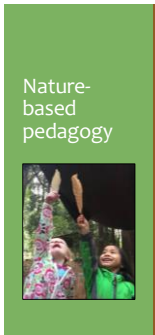
What is NbECE?

The blending of two disciplines

Nature-Based Early Childhood Education (NbECE)



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- Disrupting the human/nature divide

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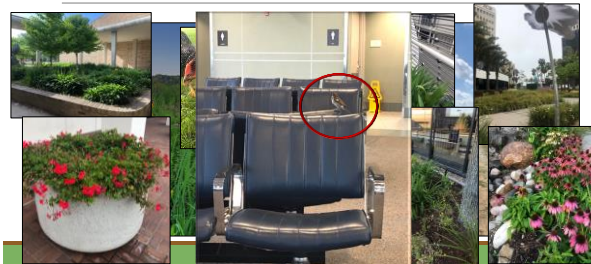


“Nature is always trying to tell us we are not so superior or independent or alone or autonomous as we may think.”

-Wendell Berry

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What counts as nature?



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Nature-based pedagogy



- Disruption of the human/nature divide
- Extensive, daily outdoor time
- Child-driven emergent curriculum (thus seasonal) emphasizing learning *with* nature

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Learning *in* nature

- Physically occurs outdoors
- Does not depend on nature for learning to occur
- Mostly teacher-led
- *Examples:* Sensory table outside, reading a story about trucks, drawing ballerinas



What is NBECE?

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Learning *about* nature

- Physically occurs indoors or outdoors
- Content focused on nature
- Mostly teacher-led
- May build over time
- *Examples:* life cycle of a frog; names of birds



What is NBECE?

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Learning *with* nature

- o Physically occurs outdoors
- o Outside teacher's plans
- o Mostly child-led because it emerges out of experience
- o Gives learning *about* personal meaning
- o Builds over time
- o *Examples:* Discovery & asking questions about scat; studying a found dead bird



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Assumptions in learning *with* nature

- o Nature provides more than we can plan for
- o Children should be heard
- o Children are capable
- o Risky play is an important part of learning



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Nature-based pedagogy



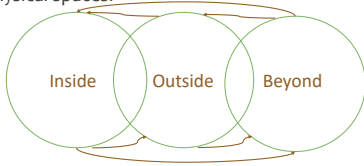
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Nature-based pedagogy



- Disruption of the human/nature divide
- Extensive, daily outdoor time
- Child-driven emergent curriculum (thus seasonal) emphasizing learning with nature
- Learning occurs in, among, between three physical spaces:



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The common journey of NbECE implementation



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Three spaces are a continuum of human structure

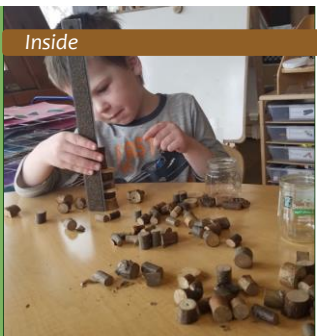


Most human-designed

Least human-designed

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Inside



- Designated areas
- Areas & materials labeled (i.e., environmental print)
- Extensive human-made materials; some natural materials

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Be intentional when purchasing materials



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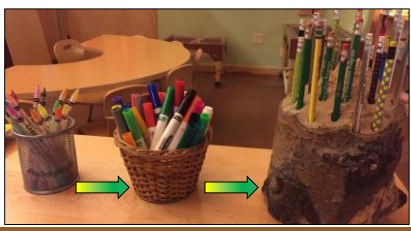
Six principles for bringing nature inside

- 1. Use natural instead of manufactured materials
- 2. Choose authentic instead of cartoon-like
- 3. Avoid stereotypes
- 4. Represent local nature
- 5. Connect the indoors to the outdoors
- 6. Take advantage of science & math learning opportunities



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Choose natural over manufactured materials



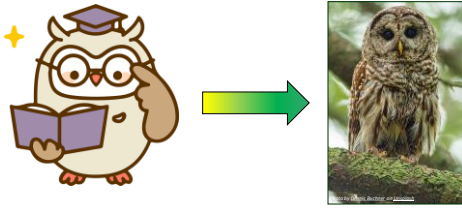
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Choose natural over manufactured materials



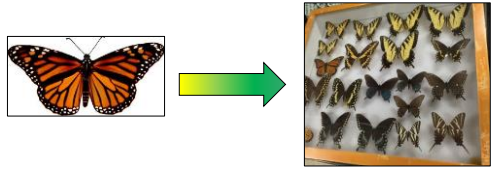
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Choose authentic instead of cartoon-like



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Avoid stereotypes when selecting materials (& represent LOCAL species)



Not all butterflies are monarchs!
Not all pigs are pink! Wolves don't have red eyes! Etc...

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Represent local nature



"If you we blindfolded you, took you on a plane, and dropped you in the middle of an early childhood classroom, would you know where you are based on what you see?"

Duncan, Martin, & Kreth in Rethinking the Classroom Landscape: Creating Environments That Connect Young Children, Families, & Communities

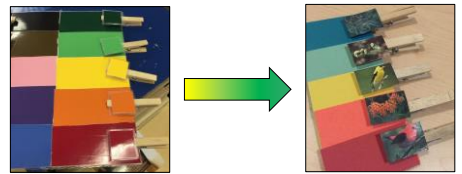
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Connect the indoors to the outdoors ("blur the lines")



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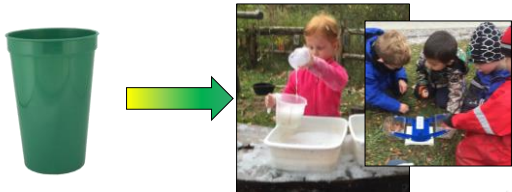
Connect the indoors to the outdoors ("blur the lines")



What would serve the same purpose, but better connect to nature?

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Take advantage of math & science learning opportunities



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Examples of materials to include—Tools

- Microscope
- Binoculars
- Hand lenses
- Cameras
- Trail cameras (motion sensor)
- Mirrors
- Balance
- Tape measures



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Examples of materials to include—Loose Parts

- Furs, skulls, & other bones
- Color chips
- Tree lacing blocks & beads
- Snow
- Collections of: acorns, rocks, pinecones, feathers, bones, shells...
- Rain sticks
- Animal calls (e.g., loon, turkey, squirrel)



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Examples of materials to include—Loose Parts

- Puppets
- Insect wings
- Birding vests
- Materials for art:
 - Pinecones
 - Feathers
 - Rocks
 - Sticks
 - Leaves
 - Leaf & track stamps, rubbing plates, etc.



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Examples of materials to include—Toys & Games

- o Animal puzzles
- o Floor puzzles w/ animal life cycles
- o Matching games (e.g., caterpillar & butterfly)
- o Felt games like carrot patch letter matching
- o Nature Preschool board game



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Examples of materials to include—Texts

- o Nature-based storybooks
- o Informational texts (including field guides!)
- o Maps
- o Nature sight words for writing center



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Throughout the Room

- o Stuffed animals w/ calls & matching cards
- o Alphabet & number lines (created by children using natural materials)
- o Nature as decoration
- o Plants & animals
- o Photos of children IN nature



5. Bringing nature indoors

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- General zones not designated areas
- Not labeled for specific use (environmental print can be integrated in other ways!)
- More even balance of human-made & natural materials
- Varied sizes of loose parts to manipulate

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Provide more natural materials & loose parts



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Physical Environment

Provide more natural materials & loose parts



Physical Environment

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Seven horizontal lines for writing notes.

Outdoor play area as an extension of the classroom

- o General appearance of a natural space
- o Safety
- o Variety of spaces (e.g., sunny/shady, open space, nooks)
- o Mix of human & natural elements (e.g., trees, mini-cabin, mud kitchen)
- o Variety of equipment & materials
 - o Tools for nature exploration
 - o Materials for creative expression (painting, dancing, music, etc.)



Austrian Ansatz Kindergarten, Schönb

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Seven horizontal lines for writing notes.

Examples of materials to include

- o Constructed elements (e.g., small stage, bench, playhouse, cozy nooks)
- o Natural materials (e.g., Sand play area, gardens, trees, water play)
- o Art supplies (e.g., Paint, easels, Clay, crayons)
- o Manufactured & natural loose parts! (e.g., PVC pipes, buckets, shovels, sticks, stones, soil)



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Seven horizontal lines for writing notes.

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Beyond (outside the fence)

- Designations for communicating in conversation, not labeled
- Natural materials dominate, some human-made materials
- Non-human elements as another teacher—for both children & adults

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Connecting to something bigger than themselves



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Accessing nature in urban areas

- o Walk to a local park, courtyard, etc.
- o Transport the children to a more "wild" space
- o Have families drop off &/or pick up at a natural space
- o Remember, it doesn't take much space or natural materials to engage children



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Cowgate Children's Center, Edinburgh, Scotland



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Take exploration tools to the *beyond*



- Mirrors
- Magnifiers
- Spoons
- Buckets
- Aquaria
- Sheets/tarps
- Ropes
- Books
- Art supplies



Physical Environment

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Connect learning inside, outside, & beyond



What is NbECE?

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Connect learning inside, outside, & beyond



What is NbECE?

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What is NbECE?

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Other considerations

- Storage outdoors
- Storage for seasonal equipment/tools (sleds)
- Shelter from the elements outdoors (porch, pavilion)
- Clothing!



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Clothing is a vital tool

- **Have it**
 - Purchase class sets
 - Have a stockpile of “extras”
 - Ask families to donate what they've outgrown
- **Clean it**
 - Kids & clothes are washable ☺
 - Dry, shake & then wash (for mud)
 - In the meantime, have a place for dirty gear outside of classroom
- **Store it**



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Where we've been...

- Why nature?
- What is nature-based education?
- Preparing the physical environment
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Remember, you're changing lives every day!

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Thank you!



Rachel A. Larimore, Ph.D.

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Seven horizontal lines for writing.

