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

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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Nature is all the rage...

Even more so now...
Nature is Necessary for Healthy Development

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

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What is NbECE?

The blending of two disciplines

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Nature-Based Early Childhood Education (NbECE)

- Early Childhood Education
  - Child Development
  - Nature 2nd grade
  - Nature 3rd grade
  - Nature Kindergarten
  - Nature-Based & Forest Preschool
  - Nature-Based Child Care
- Environmental Education
  - Environmental Sustainability

• Disrupting the human/nature divide

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

-Wendell Berry

What counts as nature?
Nature-based pedagogy

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

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

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

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

Nature-based pedagogy
- Disruption of the human/nature divide
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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:

  Inside  Outside  Beyond

The common journey of NbECE implementation

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Three spaces are a continuum of human structure

Most human-designed

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

Least human-designed

Be intentional when purchasing materials

Designated areas

Areas & materials labeled (i.e., environmental print)

Extensive human-made materials; some natural materials
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

Choose natural over manufactured materials
Choose authentic instead of cartoon-like

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...

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?”
Connect the indoors to the outdoors (“blur the lines”) What would serve the same purpose, but better connect to nature?

Take advantage of math & science learning opportunities
Examples of materials to include—Tools
- Microscope
- Binoculars
- Hand lenses
- Cameras
- Trail cameras (motion sensor)
- Mirrors
- Balance
- Tape measures

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)

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.
Examples of materials to include—Toys & Games
- Animal puzzles
- Floor puzzles w/ animal life cycles
- Matching games (e.g., caterpillar & butterfly)
- Felt games like carrot patch letter matching
- Nature Preschool board game

Examples of materials to include—Texts
- Nature-based storybooks
- Informational texts (including field guides!)
- Maps
- Nature sight words for writing center

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

Provide more natural materials & loose parts
Provide more natural materials & loose parts

Outdoor play area as an extension of the classroom

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

Examples of materials to include

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

Connecting to something bigger than themselves
Accessing nature in urban areas

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

Take exploration tools to the *beyond*

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

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**

Where we’ve been...
- Why nature?
- What is nature-based education?
- Preparing the physical environment
  - Inside
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  - Supporting spaces

Remember, you’re changing lives every day!
Thank you!