

Inspiring Nature-Based Early Learning

Presented by:
Keystone Kids Go
The Food Trust
Brown's Family Childcare
and
Early Learning Resource Centers
8, 9, & 10



Workshop Presenters



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Nature-Based Learning for Young Children

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Why Nature?



Nature:

- Improves nutrition
- Improves eyesight
- Improves social skills
- Improves self-discipline
- Increases physical activity
- Reduces stress



Harvesting beans from a vine-covered teepee.

Photo: Natural Learning Initiative

Nature:

- Increases physical activity
- Reduces Attention Deficit Disorder (ADD) symptoms
- Improves academic performance



Nature

- Supplies Vitamin D
- Supports creativity and problem-solving
- Enhances cognitive abilities
- Promotes empathy and caretaking
- Engages all the senses



A child's body is designed to train its own proprioception through "heavy work":

- Pushing/pulling
- Lifting heavy things
- Raking
- Digging

Source: Hanscom, A. (2016) *Balanced and Barefoot: How Unrestricted Outdoor Play Makes for Strong, Confident and Capable Children*



The Vestibular Sense:

- Improves visual tracking and fine motor skills
- Supports language development
- Helps with a child's self-care and independence
- Encourages self-regulation (think of rocking)

What is the Vestibular Sense?

Vestibular is the **balance** sense. It helps with:

Moving smoothly



Walking up and down stairs without tripping



Riding a bike or skateboard

Maintaining a sense of balance



Riding in a moving vehicle



Rocking back and forth

Sitting and standing upright



Sliding down a slide and staying upright



Maintaining upright posture



A child's body is designed to train its own vestibular system by:

- Climbing
- Spinning
- Swinging
- Moving the body in all planes

Source: Hanscom, A. (2016) *Balanced and Barefoot: How Unrestricted Outdoor Play Makes for Strong, Confident and Capable Children*



Underdeveloped proprioceptive and vestibular senses can lead to:

- Clumsiness
- Difficulty reading smoothly
- Higher susceptibility to falls, fractures and dislocations
- Children who have a hard time regulating body force
- Children who are more accident prone
- Children who have difficulty sitting or fall out of their seats

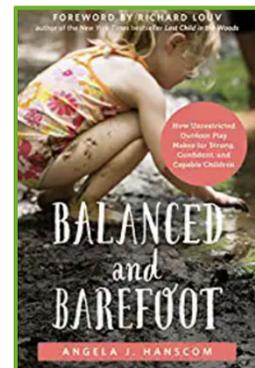


A US school district plans to change the popular playground game (Blind Images/REX Shutterstock)

Source: Hanscom, A. (2016) **Balanced and Barefoot: How Unrestricted Outdoor Play Makes for Strong, Confident and Capable Children**

“All academic abilities are the end product of varied and rich sensory motor experiences during infancy and early childhood.”

*-Angela J. Hanscom
Balanced and Barefoot*



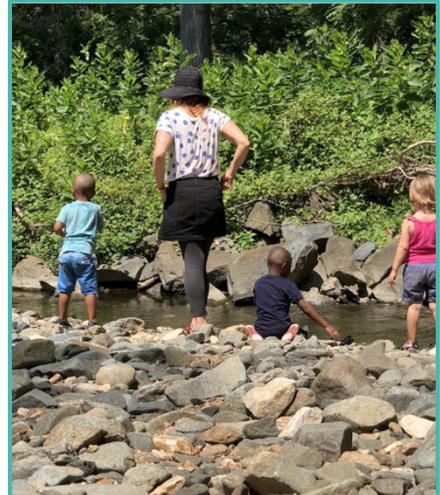
**Hanscom, A. (2016):
Balanced and Barefoot:
How Unrestricted Outdoor
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and Capable Children**

What is Nature-Based Learning?

Inside



Outside



Nature-Based Learning Programs:

- Foster curiosity-driven learning and child-led play
- Use an Emergent Curriculum
- Focus on social, emotional, physical and creative development (a de-emphasis on academics)
- Follow the Pedagogy of Loose Parts as a major feature.



Play-Based Learning

NAEYC asks educators:

- To recognize play as critical for children to experience joy and wonder.
- To incorporate frequent opportunities for play in their teaching strategies.
- To plan learning environments that provide a mix of self-directed play, guided play, and direct instruction.



Why is play so important?

Physical

By encouraging children to move, stretch, run and climb, play is essential for children's physical development.

Intellectual

Play involves understanding that one thing can represent another, and the use of narratives, both of which are essential for literacy.

Emotional

Through play, children learn emotional self-regulation and resiliency.

Source: www.playgroundideas.org/caseforplay

Why is play so important?

Cognitive

Playing outside reduces stress, allowing children to concentrate and encouraging brain development.

Social

Children practice skills of solitude and teamwork, and helps them to make new friends.

Therapeutic

Play is an intuitive method for children to process trauma, and reconnect to the world.



Source: www.playgroundideas.org/caseforplay

Why is play so important?

Creative

By allowing children to translate their ideas into reality, play encourages a rich and flexible creativity.

Economic

All of the above benefits combine, so that children with access to play are also more prepared for and able to thrive in school and work. This has direct financial economic benefits for the rest of their lives.



Source: www.playgroundideas.org/caseforplay

The Theory of Loose Parts

Proposed in the 1970's by architect Simon Nicholson, who believed that it is the loose parts in our environment that empower our creativity.



Developmental Benefits of Loose Parts

- Encourages creativity and imagination
- Can be adapted and manipulated in many ways
- Develops more skill and competence than most modern plastic toys



Nature Play with Loose Parts



Models of Nature-Based Early Learning

- Nature-based preschools:
 - At least 30% of the *daily* schedule outdoors, unless the weather is dangerous
- Forest preschools (a.k.a. “forest kindergartens”):
 - 70-100% of time is outdoors
 - Washington state has re-written childcare regulations to license fully outdoor programs



PA ELS 2.1 PK.MP: Use mathematical processes when quantifying, comparing, representing, and modeling numbers.

Head Start ELOF Goal P-MATH 3: Child understands the relationship between numbers and quantities.



Bringing Nature Inside the Classroom

What elements dominate your space? Is nature present inside?



- Connect the indoors to the outdoors
- Use natural instead of manufactured materials
- Represent local nature
- Choose authentic instead of cartoon-like
- Avoid stereotypes



Expanding the Physical Environment Outdoors: What do we do indoors that we can do outdoors?



Take learning tools outside:

- Scoops, spoons & shovels
- Buckets
- Sheets and tarps
- Art supplies & easels
- Books
- Blocks
- Fine motor projects (scissors, hole punchers, play dough, lacing, etc.)
- Mirrors
- Magnifiers





Expanding the Physical Environment Outdoors



An outdoor kitchen is a simple (and very popular!) place to start

Nature play 101: An outdoor kitchen and loose parts



- PA ELS 10.5 PK.A** Use hands, fingers, and wrists to manipulate objects.
- PA ELS 10.5 PK.B** Coordinate eye and hand movements to perform a task.
- PA ELS 10.5 PK.C** Use tools that require use of fingers, hands, and/or wrists to accomplish a task.
- PA ELS 16.2 PK.A** Interact with peers and adults in a socially acceptable manner.
- PA ELS 16.2 PK.C** Engage in reciprocal communication with adults and peers.
- PA ELS 9.1.D PK.E** Use imagination and creativity to express self through dramatic play.



Learning and development beyond the classroom



“There is no such thing as bad weather, only inappropriate clothing.” ~ Scandinavian saying



Teachers need all the same layers and quality outerwear that children have.

Typical continuum of engagement with nature-based ECE



1. How is your educational approach similar or different to the nature-based approach?
2. Where on the continuum is your program or classroom currently?
3. Where do you **want to be** on the continuum?

Increasing Time in Nature in All Seasons

- Acknowledge the many benefits for children, and offer staff and parent education.
- Reconsider the ratio of indoor/outdoor time.
- Plan so that each child and teacher has the proper outerwear for each season.
- Start small:
 - Add outdoor time at the beginning of the day.
 - Start by increasing outdoor time one day per week (example: every Friday is spent outside).
 - Go outside in all weather unless it is dangerous.
 - Have “all day outside” days on nice days.
 - Move toward daily excursions into the beyond / more wild areas.



Larimore, et. al (2019)





FARM to ECE

EDUCATION

GARDENS

PROCUREMENT

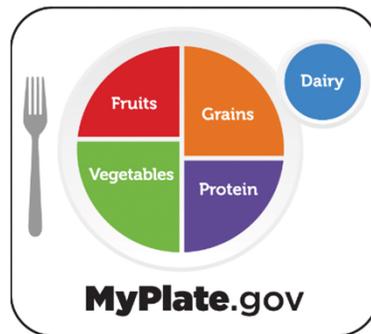
Farm to Early Care & Education

Isel Otero-Vera

CORE ELEMENTS OF
FARM to ECE



CORE ELEMENTS OF
FARM to ECE



Nutrition, Agriculture & Experiential Learning

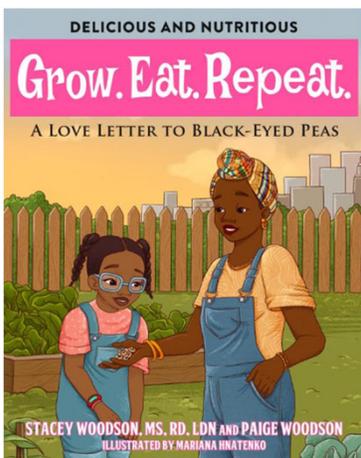


A Mother's Touch Center for Child Development, Sharon, PA



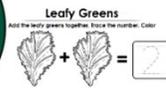
STEP Head Start, Williamsport, PA

Nutrition, Agriculture & Experiential Learning

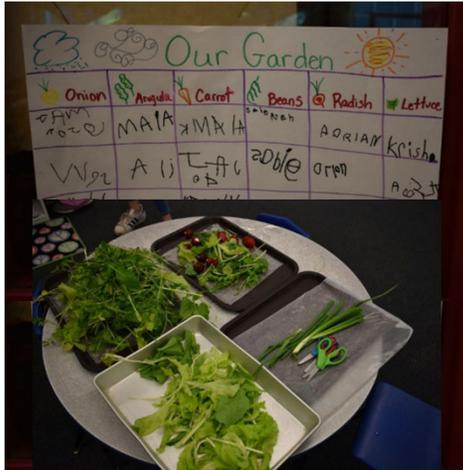


Sample Supporting Equipment & Resources

- [Curricula](#), [Recipes](#) and [Activity Kits](#) - multicultural books and learning resources
- **Cooking & Taste Testing** - kid-friendly prepping, cooking and serving tools
- **Edible gardening guides** - horticultural [guides](#) and [learning resources](#)
- **Indoor and Outdoor Gardening Materials** - seeds & seedlings, raised beds, composting, soil, storage, irrigation & raincatcher, greenhouse, floating row cover, lights or hydroponics systems



Local Food Procurement for Meals and Snacks



Londonderry School,
Harrisburg, PA



Ms. Rosado, SNAP-Ed Nutrition Educator,
Philadelphia, PA

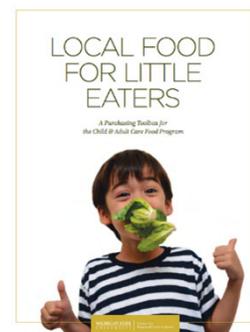
Local Food Procurement for Meals and Snacks



The Caring Center,
Philadelphia, PA

Sample Supporting Equipment & Resources

- **Learning Resources** – Meal planning and local food buying [guides](#)
- **Food Prep and Cooking** – Multicookers, oven, range, grill, mixers, juicers and food processors
- **Storage** – shelving units, drying racks, and food storage containers
- **Refrigeration** – Refrigerated containers, blast Freezers and chillers
- **Technology** – data management systems



Resource: [Local Food for Little Eaters: A Purchasing Toolbox for the Child and Adult Care Food Program](#)





For more information and to get involved:
www.pafarmtoschool.org



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Lindsey Brown

Owner/Director of
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<https://certified.natureexplore.org/browns-family-childcare-llc/>





Lindsey Brown
Owner/Operator
at Browns Family
Childcare, LLC

My program is nature-based with an approved curriculum that aligns to the PA ELS for Pre-kindergarteners and I have a nature explore certified outdoor classroom.

Nature Explore Certified Classroom:
<https://certified.natureexplore.org/browns-family-childcare-llc/>

[Browns Family Childcare, LLC - Nature Explore Program](#)

Nature-based learning in action outside and inside!



How to become Nature Explore certified:
[Apply for Certification - Nature Explore Program](#)

Elements of my Nature Explore Classroom and how to use them.



Exploring & learning with natural materials

Learn with natural materials- pinecones, leaves, sticks, grass, trees, wood cookies, seashells.

Add a birdwatching area for children to observe, document and question.



Birdwatching Area



The Nature Explorers gather here

Provide a cozy reading area to promote language and literacy development.

Outside classroom elements continued.



A Mud kitchen area can be used in many ways! Add mud, sand, grass and more to make nature stews, pretend produce stand, hair salon, restaurant.

Water table play benefits strengthens muscles, sensory benefits, mathematical thinking and expression (measuring, pouring, scooping, predicting)



The Nature Art in Nature

Art Area: Provide materials for children to be creative and show expression and build fine motor skills!

Bring the inside, outside.



Anything that can be done inside can be done outside!

Reading, writing, blocks, tents, art, Magna tiles or other manipulatives, pretend animals for a scavenger hunt.



Scavenger hunts are a great way to promote physical activity!



Gardening! From seed to table! Inside or outside!



Gardening activities are beneficial for everyone and provide a fun activity for children to be part of. Gardening is a great way to introduce plant life cycles and talk about where food comes from!



Benefits to nature-based play and environmental learning.

Nature and outside play provides endless opportunities for children to explore the world around them, it promotes creativity, problem-solving, and STEM. Children can think, question, make hypotheses and develop inquisitive minds.

Nature provides amazing health benefits including reduced stress, reduced the risk of childhood obesity, improves mental health and provides opportunities to get physical activity in.

Children can also learn a deeper understanding of the environment and engage in taking action to help improve the environment.



Bring the outside, inside! A virtual tour of my nature-based classroom and materials.

Add natural materials to your classroom for children to explore, classify, characterize and hypothesize!



More elements to my nature-based indoor classroom

An example of how to bring the outside in! Raise butterflies from caterpillars and set-up a science area to enhance learning in a fun way. Then allow children to set them free!



Science center: All about frogs & ponds.

Adding living things to your classroom allows children to care for something, learning responsibility and empathy and observe and witness changes over time.



Children will also learn how to classify living and non-living things!

Egg to frog! 🐸🐸🐸🐸



Timeline:

April 18- got eggs

April 22- all tadpoles are hatched

May 6- some appear to have legs!

May 20- mostly all have legs

June 3- we have our first frog!

Total time from egg to first frog= 7 weeks.

Add plants to your classroom to bring a nature inspired coziness to your space and set-up a plant theme in your science area! Add indoor hydroponic gardens and grow your own food!
Talk about plant life cycles, what plants need to survive (photosynthesis), and describe characteristics of plants such as parts of a plant or type of plant.



Free-play nature learning at its best.



“Curiosity is the spark behind the spark of every great idea. The future belongs to the curious” -Unknown

“Free play time gives children the opportunity to create, experiment, explore and learn about things they love” -Lindsey Brown



“Don’t just tell children about the world, show them! -Penny Whitehouse



My nature-based classroom set-up and learning.



As shown in photo above, I have various nature items and resources accessible for free play learning.

I have a plentiful selection of diverse books about nature and farm to ece and a cozy space to read.



A Farm Fresh Produce stand enhances learning opportunities in many domains!

Add nature photos to your classroom to "bring the outside in".

The link to learning. How I lesson plan!

This lesson shows how I incorporate farm to ece into my program through taste-testing. See how taste-testing aligns with all the early learning standards for pre-kindergartners!



Add 5 sense experiments into your taste-testing activity!



Here are the 8 key learning areas and how to align your next taste testing activity to all the learning standards!

- ☑ Approaches to learning through play: Use senses to explore and learn from the environment. (Touch the potato, taste, smell, etc.)
- ☑ Language & Literacy Development: Act or respond to simple statements and questions. (Will you try the potato? Where do potatoes grow?)
- ☑ Mathematical Thinking & Expression Compare numbers. Graphing. (How many like versus dislike)
- ☑ Scientific Thinking & Technology: Categorize. Use 5 senses. Compare and contrast. (Potatoes Have? Are? Grow?)
- ☑ Social Studies Thinking: Talk about businesses. Role play. (Farmer, gardener, produce seller)
- ☑ Creative Thinking & Expression: Create a farm art project with various materials. (Stickers, markers, paint, playdough.)
- ☑ Health, Wellness & Physical Development Identify healthy foods. Classify food by group. (Fruit/Vegetable. Healthy/Unhealthy)
- ☑ Social & Emotional Development Express feelings about tasting item. (I love the potato. I do not like the potato.)

I utilize the PA Harvest of the Month program as a resource for taste-testing activities! Learn more about the program here: [Pennsylvania Harvest of the Month | Home \(paharvestofthemonth.org\)](https://www.paharvestofthemonth.org/)



Lori McMonigal

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www.keystonekidsgo.org

Keystone Kids Go - A Valuable Resource Bank!



Lindsey Brown, Owner/Director of Brown's Family Childcare LLC, a group child care in Venango County, has a passion for children's health and nutrition. As an active participant in the Child and Adult Care Food Program for over 8 years, Lindsey eagerly volunteered to pilot the use of Harvest of the Month resources in her childcare. Her creative use of integrating the materials into other learning areas and incorporating supportive resources resulted in healthy fun for the children in her care. Lindsey tells her story through video and encourages others to give these resources a try!

Multicultural Collection of Farm to ECE Books

The Food Trust's multicultural collection of farm to ECE books highlights children's books that feature characters from underrepresented racial and ethnic groups, many of which are authored by writers of color. The list also includes a number of books that are either bilingual or written exclusively in Spanish. These books cover a wide variety of farm-to-ECE related topics including gardening, farms, cooking, family meals, farmers markets, shopping for food and more.



Farm to Early Care and Education (ECE)

Module Objective
 Provide and overview of the strategies ECE providers can use to connect children and families to healthy, local foods with a special emphasis on gardening.

Resource to Support a Trip to the Farmer's Market

Multicultural Selection of Farm to ECE Books
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Complete the [online, interactive workshop](#).
 Complete the [workshop quiz](#) and receive professional development hours.

Staying Connected with Children and Families during COVID-19



The photo on the left shows Miss Marshall leading a fun, virtual movement activity using "Baby Shark."



Miss Marie leads Virtual Moments to Family during the quarantine.



Miss Marie leads a cooking demonstration for families to engage in farm-to-food.

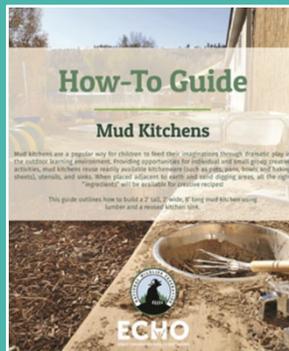
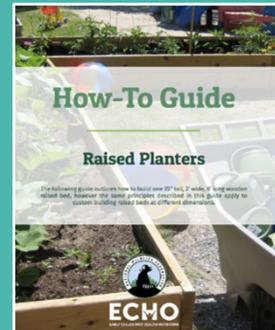
What small steps can you consider?

- Replace manmade materials in the classroom with natural materials
- Build a small garden bed. As you learn and grow together, expand your outdoor gardens.
- Start an outdoor classroom by bringing more “indoor” activities outside
- Add loose parts for creative play
- Add an outdoor kitchen
- Ask families to dream with you, and donate time and/or materials to enhance your outdoor spaces



Getting Started

- **Take a look at the many resources available**, including ECHO’s many free how-to guides
- **Arrange a staff meeting** to brainstorm, plan and consider changes you could make in your indoor or outdoor environments
- **Start small** - think of areas you’d like to add or change, and build from there.
- **Enlist the help and support** of parents and community members for free items/donated labor.



PA Nutrition and Physical Activity Self-Assessment for Child Care

From the **Keystone Kids Go** website, stop by the “PA NAPSACC” tab to:

- Request your free access code for Go NAPSACC
- Join our listserv to hear about the PA NAPSACC Wellness Grant and other opportunities, and
- Hear Pennsylvania programs share the challenges, successes, and advice from their own journeys to improve nutrition and physical activity practices and policies

<https://www.keystonekidsgo.org/pa-napsacc.html>



Getting Started

Visit and consult with

[thefoodtrust.org](https://www.thefoodtrust.org),

www.pafarmtoschool.org

and [keystonekidsgo.org](https://www.keystonekidsgo.org),

which includes an extensive

Nature-Based Learning

Resource list



PENNSYLVANIA
FARM TO SCHOOL
NETWORK



Keystone
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www.keystonekidsgo.org

THANK YOU FOR JOINING US!



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CARE
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