



## FOLLOW-UP

# TAKE IT OUTSIDE!

## ADVENTURES IN NATURE WITH STEAM

**FRIDAY, MAY 8, 2015**

### Thank You!

We're so glad you were able to join us for the last Teacher Time in the series on STEAM (Science, Technology, Engineering, Art, and Math), and the final show of the season.

You can view previous Teacher Time shows on the [ECLKC website](http://ECLKC.org) and at [Teachertime.org](http://Teachertime.org).

### Presentation Summary

We talked to Dr. Gail Joseph about her experience with teacher Daren Chamberlin and an Early Childhood Outdoor (ECO) classroom project. We watched a video that documented their project and asked Gail to tell us about it.

Gail's key message: Nature-based learning can help address CLASS domains. See the examples below.

	Analysis and reasoning	Creating	Integration	Connections to real world	Advanced language
Reading nature books	Predict what the book might be about. What do you think we might see in this book?	Brainstorm—name all of the plants and animals we might find in this book.	Connect the story to our own classroom insects, animals, and sensory table.	What do we see outside our own windows?	Introduce and explain nature words in the story.
Painting with nature brushes	Ask, how is this brush different from other paintbrushes we have used? How is it similar?	Create a painting using brushes made from sticks, leaves, straw, etc.	Compare the paintings to other paintings we have made.	Have you seen a brush like this before? What does it remind you of?	Introduce new words for plants, textures, colors, etc.
Creating tiny collections	What things will fit on a penny? What won't? How are our collections similar? Different?	Search outside for tiny things to collect.	Connect the items to things we saw in a nature book.	Find items by exploring outside.	Introduce new words for the things that are discovered.
Making ephemeral art	How can we make art that is temporary, with natural objects like rocks, leaves, shells, and sticks?	Make patterns, towers, spirals, shapes, etc.	Compare our art to ephemeral art in books or photographs.	Use natural objects.	Introduce new words like ephemeral, stones, and spirals.

## Try It Out

Sam Dolan joined us with her favorite nature-based learning activities and shared what the research tells us about the benefits of outdoor learning experiences.

- Large-scale studies have associated outdoor activity for young children with lower rates of myopia, or nearsightedness, in adolescents (Dirani et al. 2004, Rose et al. 2008, Wu, 2012).
- The varied topography of outdoors, opportunities for movement, and different types of play can allow children to develop motor skills in a different way than in traditional playgrounds. A 2001 study found that children who played daily in a forest showed greater improvements in motor skill development than classmates who played on a traditional playground (Fjortoft & Ingunn).
- Vitamin D deficiencies are a real concern for young children. Vitamin D helps the body process calcium, and deficiency can lead to problems mineralizing bones. Allowing children, properly protected, to play outside in sunlight is a cost-effective way of reducing the risk of Vitamin D deficiency (Misra et al., 2008).
- Several studies link time spent outside with lower body mass index in children (Bell et al., 2008, Klesges et al., 1990). Other studies have found that children engage in more moderate-to-vigorous physical activity when they are outside rather than indoors.
- A 2007 study found that children eat more fruits and vegetables if they are homegrown. The availability of fresh fruits and vegetables, as well as parent modeling, are associated with consumption (Nanney et al. 2007).
- A 2006 study by Holmes measured the ability of preschool children to pay attention during circle time after spending time in both indoor and outdoor environments. The ability to focus was significantly better following sustained play outside.

Outdoor STEAM activity ideas:

- Plant an herb garden—Make sure the plants are non-toxic, so children can touch, smell, and even taste them.
- Leaf collections—Bring leaves inside the classroom to use with seriation activities, shape matching, and counting.
- Sun prints—Use special paper that reacts to solar radiation. Place an object on the paper for 5 minutes. Rinse it off to see the print that the sun created.

## Resources

The Nature-Based Learning and Development page on the ECLKC is full of information, resources, and videos of ways to promote learning in outdoor environments. <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eeed/nature-based-learning>

Deana Scipio shared three nature-based storybooks:

- *Everybody Needs a Rock* by Byrd Baylor
- *Madlenka* by Peter Sis
- *Earth Mother* by Ellen Jackson

## Behavior Management Minute



Does your classroom have a jar of craft loops? Use them to encourage pro-social behavior during outdoor learning time. Take them outside with you and watch for children who listen, share, play together, or show kindness in other ways. Children can wear them on their wrists. At the end of the activity, staff can collect them in a special container. Fill up the container? Have a friendship loop party!

## Resiliency & Wellness

We all experience stressful moments! Use an everyday sign from the hardware or office supply store—Stop, Open, Exit, or a red light—to remind yourself it's time to take a couple of deep, cleansing breaths.



**Teacher Time**  
Webinars for Head Start Preschool Teachers

For more information, contact us at: [NCQTL@UW.EDU](mailto:NCQTL@UW.EDU) or 877-731-0764

This document was prepared under Grant #90HC0002 for the U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, by the National Center on Quality Teaching and Learning.

SPRING 2015