



THE
CARE
COURSES
SCHOOL
INC.

LET'S PLAY OUTDOORS

*A Self-Instruction Care Course®
for Early Childhood Professionals*



Having trouble opening this file? Download
the most recent version of Adobe® Reader®.



Copyright © 2015 Care Courses. All rights reserved.

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses.

This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

Let's Play Outdoors

– Online Course –

a Self-Instruction Course for Early Childhood Professionals

Clairece Feagin

The Care Courses School, Inc.

P. O. Box 10526

McLean, VA 22102-8526

1-800-685-7610

FAX: 703-448-5585

www.CareCourses.com

About the Author:

Clairece Feagin holds an Ed.M. from Harvard University. She is author of Contemporary Books' "Stories for Parents" and "Let's Read Together" series as well as various social studies texts and teaching materials.

Credit Available for This Course

Let's Play Outdoors offers 10 clock hours (1.0 CEUs) of training. Credit for this course is available only through Care Courses.

This course can be read directly on your computer and/or printed on your printer. Read the section "How to Do This Course" on page iii of this PDF file.

Contact information

The Care Courses School, Inc.
P. O. Box 10526
McLean, Virginia 22102-8526
1-800-685-7610
FAX: 703-448-5585
www.carecourses.com

This course presents a number of articles reprinted from *Child Care Information Exchange* (now *Exchange*), a magazine for early childhood professionals. Following is the magazine's mission statement:

Exchange is committed to supporting early childhood professionals worldwide in their efforts to craft early childhood environments where adults and children thrive—environments that foster friendship, curiosity, self-esteem, joy, and respect; where the talents of all are fully challenged and justly rewarded.

Exchange magazine is published bi-monthly and is a valuable resource for early childhood professionals, especially directors. Contact Child Care Exchange, 800-221-2864, for magazine subscription information.

Introduction

Welcome to *Let's Play Outdoors*. This self-instruction course is designed for adults who teach or care for young children.

This course has two lessons:

Lesson 1: The Importance of Time Outdoors

This lesson presents a selection of articles related to the importance of experiences in nature for children's development; the history of outdoor play spaces; the characteristics and benefits of various types of playgrounds; ways that connections with nature can promote children's social and emotional well-being and foster language, literacy and science understanding; and ways to use outdoor areas for music and movement activities.

The articles, all written by experienced early childhood specialists, first appeared in *Exchange* (formerly *Child Care Information Exchange*).

Lesson 2: Designing and Using Outdoor Spaces

The articles in this lesson, also from *Exchange*, present several early childhood specialists' ideas, experiences, and advice related to the importance of the physical design of outdoor play spaces and the connection between the design of outdoor space and children's experiences in this space; the value of using natural materials in outdoor spaces; the design of outdoor spaces for young children; providing for children's safety in outdoor play areas; activities for outdoors; ways to evaluate outdoor play areas; and ways to meet the outdoor play needs of school-age children in after-school programs.

The articles in this lesson will not only give you numerous exciting ideas for improving the outdoor space at your own early childhood facility but also inspire your confidence that you can create a wonderfully inviting outdoor setting for children's enjoyment and learning.

The Care Courses School Honor Code and Policy

All work must be done by the student whose name is on the account where the enrollment code was activated.

Care Courses cannot grade course work or issue a certificate unless the student has agreed to and acknowledged agreement certifying that all course work, including quizzes and activities (if any), was done solely by that student. Honor Code certification is done at the time of online quiz completion.

Care Courses reserves the right to investigate and require further documentation from the student to determine whether quiz or activity answers are the student's own work. In the event Care Courses in its sole discretion determines that the coursework is not the student's own work, no certificate will be issued, and other remedial action may be taken.

How to Do This Course

This self-instruction course is designed for independent study.

Advantages of a self-instruction course

- You don't have to leave your home to attend classes.
- You can work on the course whenever *you* choose, not just when a class happens to meet.
- You can work as fast or as slowly as *you* want to.
- You can spend as much time on every lesson as *you* need to.

This course can be read directly on your computer and/or printed on your printer.

* * *

This course has several features to help you be your own teacher.

Learning Objectives

Each lesson begins with **Learning Objectives**. Read these before you read the lesson. They will help you focus on the important points of the lesson.

Self Checks

Each lesson has True/False **Self Check** questions with answers provided. Answer these questions, and check your answers. Re-read any sections of the lesson that gave you trouble.

Lesson Quizzes

Each lesson ends with a **Quiz**. Please read the entire lesson two times before attempting the **Lesson Quiz**. Once you have finished reading each lesson, return to **My Courses** within your Account at www.CareCourses.com and open your course to access the Online Quiz for the lesson.

You must make a score of at least 70% on each Quiz in order to receive credit for this course. If your score is less than

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses.

This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

70% on any quiz, you will be given a second chance to re-read the material and redo the questions. Failing the second time will result in no certificate. Please read the course content carefully before attempting the quizzes. We want you to get the best possible grade you can!

The lessons are not designed to be hard. The questions are not designed to be tricky. Read all of each lesson and think about what it says. If you have trouble, please contact us. We're always happy to help!

800-685-7610, 9 a.m–5 p.m. ET, M-F

or

info@CareCourses.com

Happy Studying!

Lesson 1

The Importance of Time Outdoors

Learning Objectives

In this lesson you will learn

- the importance of experiences in nature for children's development
- a history of outdoor play spaces
- characteristics and benefits of various types of playgrounds
- ways that connections with nature can promote children's social and emotional well-being and foster language, literacy and science understanding
- ways to use outdoor areas for music and movement activities

* * *

In the first article in this course, Jim Greenman talks about the wonders of nature and the important role nature should play in children's development and learning. "There are melodies in the waves and poetry in the wind that blows the leaves off trees. There is art in the anthills and the strands of seaweed on the beach," he writes. Nature is beautiful and bountiful—full of surprises and opportunities for experimentation (play), reflection, discovery, and joy. Let his words inspire you to take more notice of the beauty and bounty of nature and provide more opportunities for the children in your care to experience the wonders and joys of nature.

Children Need to Live in the Real World

by Jim Greenman

Being born is a messy thing, the first time and every time. There's always a lot of screaming and crying and bodily fluids. But there are also hoots of laughter and tears of pure pleasure. It doesn't take long to get cleaned up, and there are lots of smiles and touching. But we are never too far away from the screaming and the crying and the bodily fluids.

At what point did caution become dominant? When did we surrender our children's lives to tabloid induced fear and the sacred order of risk managers? "The purpose of life, after all, is to live it, to taste experience to the utmost, to reach out eagerly and without fear for newer richer experience," said Eleanor Roosevelt, who overcame crippling shyness and a love-starved childhood.

At what point did childhood become so driven? Children have a lot to learn. We can fill them up, busy their days, keep them occupied and industrious in all manner of ways. There can be singing and dancing, books and computers. It can all look good—it can even be good. But unless we can connect them to the real world of nature and people outside the walls of our children's world, unless within our walls we can give them time and place to simply be and find themselves, it is not enough.

There are melodies in the waves and poetry in the wind that blows the leaves off trees. There is art in the anthills and the strands of seaweed on the beach. Thoughts lay dormant without stillness and solitude. Reality is difficult. It is messy and loud and profane. There are people with warts and frowns and decidedly mixed virtues. But childhood is a time when we help children begin to live in the world and love the world, and we can't do that fenced off from it in a world of two dimensional glowing screens and plastic balls and slides.

Nature was there before the Nature Company, before playgrounds, before parks. An infinite laboratory, a stage and concert hall, the natural world is a school for young children.

Nature is unpredictable. It is the uneven, the changing and evolving, the glorious untidiness of it all that provides such contrast with life inside. The ground under our feet may slope or buckle. The air may be heavy and weigh us down or be so light that time

has fallen asleep in the sunshine. Nothing falls from the sky inside—but outside there are leaves and snowflakes, rain and hail. Inside, nothing flies (except flies) or burrows or leaps from tree to tree. Many of us age and forget the joy of the small, unstaged event—the sudden dark cloud, the bird at the feeder, the toad in the garden.

Nature is bountiful. There are shapes and sizes, colors and textures, smells and tastes—an enormous variety of substances. In a world of catalogues and consumable objects, designed spaces, and programmed areas, sometimes it helps to remember that the natural world is full of multi-dimensional, unassailingly educational experiences for children. Nature is hard, soft, fragile, heavy, light, smooth, and rough. Armed with our five senses, we explore the world and call the adventure science—or, if you prefer, cognitive development, classification, sensory development, or perceptual-motor learning.

Nature is beautiful. The rainbow in the oily water or the rainbow in the sky, the dandelion or the apple blossom; there is so much loveliness we grow slack and leave the awe to artists. But look at those towering cliffs of clouds and the light streaking through the pine needles. See the silvery birch leaves and the swirls in the bark, the rain dripping from the roof, and delicate, lace-like etchings in the leaf.

Nature is alive with sounds. It is not only Maxwell House coffee makers that make music, so do the wind and rain, and, of course, birds and crickets; even dogs make music. The world is full of natural and man-made rhythms that children experience and imitate.

Nature creates a multitude of places. Lie out in the open on that hill, or under that willow. Sit on that rock or in that high grass. Squeeze under the hedge or march through that puddle. A small

strand of trees makes a forest if you are small.

Nature is real. Everything dies—the ant, the baby bird that fell from the nest, the flower, the leaf. Thistles have stickers, and roots trip unsuspecting feet. It is our world, not Gilligan's Island.

Nature lives inside and out. Any room is enlivened by plants and animals, birds and reptiles, flowers and dried plants, stone and wood. Open a window, turn off a light.

Let them be—sometimes.

Anne was having a long conversation with her best friend Kassie, trying to find a time to get together for a "play date." The two six-year-olds kept running into conflicts of swim/gym, soccer, music lessons, and other play dates as they checked the calendars kept by their mothers. Listening to them, I fully expected the conversation to end with: "Well, Kassie, I'll have my people call your people, and we'll take lunch real soon." I wonder if there are any six-year-olds with beepers or their own cellular phones?

It's not just that most children don't have the lives of Tom Sawyer or Opie in Mayberry anymore, they don't even have the freedom of the Brady Bunch. Many lead scheduled week-at-a-glance lives, managed by parents and punctuated by television. The neighborhood, the park, even the yard plays less of a role in the lives of many children.

Children need time to mess around, literally, without direction of any kind; and with stuff of their choosing, in places of their making, making their weird sounds and faces. Between idleness and industry lie other states—of experimentation (alias play), reflection, or joy.

It's not just what you do, it's who you are.

"What's that yucky stuff on the water?"

I don't know. Don't touch it.

"What is that flower?"

I don't know. But don't eat it.

"Why doesn't the vacuum work?"

I don't know, it's broken, said the teacher.

There are few things more depressing than to be in the classroom of the incurious (except the classroom of the uncaring)—rooms staffed with people who fail to ask "why" and "how," not to stimulate the children's thinking and answer their questions, but to answer their own. Not knowing is certainly no sin in the classroom. Not being interested, not having questions, not seeking answers, not showing an enthusiasm for discovery is a sin, because intellectual lethargy is contagious. The failure to wonder shrinks the universe and begins to dampen the child's marvelous spirit of inquiry.

One does not have to be interested in everything or in a constant state of childlike awe. However, a passionate interest in something, as well as delight and appreciation for a child's sense of wonder, brings a classroom to life.

Just do it!

"It's all right, dad, I'm only crying."

— Emma Greenman, age 4

(when life was a little too real)

The drive to protect our children is profound and easily can extend to scotch-guarding their lives. Scrubbing and polishing every raw experience in the name of health and safety or protecting innocence scapes away from the natural luster of childhood. Some of the wonders and joys of childhood that fuel the best in our adult selves are unavoidably birthed in bumps and bruises and tears.

Murder Most Foul

What do you say to a child who has just witnessed a murder? "Slimy murdered Peepy," she sobbed. She was right. Apparently, Slimy the snake had escaped and found a way to make Peepy the chick his dinner. Jessica had witnessed Peepy's last moments. Life is not always pretty; in fact, sometimes it is perniciously icky. I'm not sure that Peepy's unfortunate demise was appropriate for Jessica, but life does happen.

Ain't Life Grand

It was about 5:00 in the morning by my watch, but 8 a.m. to my eastern standard time body. I was walking in Stanley Park in Vancouver, British Columbia, in the earliest light of dawn. The mist was both magical and ominous, but so beautiful. Rounding a corner on the path, a huge man suddenly emerged from the shadowy grove of pines and shrubs on the water's edge. Dressed in shabby clothes with a blanket wrapped around his shoulders, I almost ran into him—and, startled, I took two steps back. At least six foot six, black, with long dreadlocks—every latent (and not so latent) stereotype and prejudice struck me with full force.

"Hey, mon, come take a look, mon," he said with a big gap-toothed smile, and beckoned me to look behind a bush. Oh ___ (censored), I thought. Minnesota nice meets homeless reality. Can I outrun him (not a chance), or will I have to rely on my charm and wit (yeah, right)? Surrender seemed inevitable, and I took the few steps toward the bush, fully expecting to see or become something horrible.

Instead, there were three newly hatched ducks and two more breaking out of their shell under the wary eyes of an alarmed duck mother. "Ain't life grand, mon," he laughed, and all I could do was smile. Together we watched the two ducks break out of their shells and the world was quite a wonderful place.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

A History of Outdoor Playspaces

by Dorothy W. Hewes

Playgrounds designated for young children were not developed until the early 1900s, even though their need for playspace has been known since ancient times.

Philosophers have pondered over this topic, as when Plato recognized that all young creatures, including humans, like to leap.

Ethologists like Jane Goodall have made us familiar with the capers of young primates. "Animals at Play" in the December 1994 *National Geographic* described activities such as a raven's repeatedly sliding down a snowbank on its back.

Archeologists found children's footprints zig-zagging and circling while adults were plodding sedately along a river bank thousands of years ago.

Anthropologists have observed children's activities in cultures untouched by our civilization, noting that they used small rocks for marbles and improvised toys from materials at hand. As one example some young children in Africa were supposed to be herding the tribal cattle but instead began catching locusts that they pretended were cows. They got so involved with building twig pens for them that the real cows wandered away.

Few behavioral scientists published serious investigation [of play in children's lives] until the 1960s, as indicated by dates of 71 studies compiled by Bruner and others in *Play—Its Role in Development and Evolution* (1976). Karl Groos, whose 1898 book on *The Play of Animals* tried to persuade educators that play is a preparation for later life, is often credited with the idea that children need to run off their surplus energy. He was apparently not very influential, since more than a century later, in December 2001, Surgeon General David Satcher's *Call to Action* report stated that young children must "get off the couch" and that communities need safe playgrounds.

Comenius and Pestalozzi incorporated outdoor games and nature walks into their programs. Teachers at Owen's Pestalozzian community at New Harmony included supervised outdoor playtime in their children's programs of the 1820s. Some infant schools of the period followed this precedent. Friedrich Froebel's kindergarten plans of the 1840s emphasized that an awareness of the natural environment was essential to the spiritual and social development of children. His sand table of the 19th century kindergartens became the sand box of the 20th century. Today, Sand Art playgrounds mean no mess to sweep up. In *Inventing Kindergarten* (1997), Norman Brosterman included Froebel's own plans for children's garden spaces. Those earliest kindergartens had access to nearby woodlands and public squares. There was no need to designate space just for children. As Alice Earle pointed out in *Child Life in Colonial Days* (1899/1973), no equipment was needed for tag, singing games, hopscotch, and other activities that have been played in the streets and fields for centuries. In Bruner's *Play*, Alison Uttley explained that, "The fields were our toyshops and sweetshops, our market and our storehouses." However, in America's increasingly crowded urban areas of the late 1800s, outdoor space was not available for kindergartens and many teachers found that the closest they could come to a natural environment was to sprout beans in a jar of water on the window sill.

Community land has a long history, but in 1634 the Boston Common became the first designated public open space in the United States. Other cities followed, but these grassy areas were also used to pasture livestock and drill the militia. The first legislative action to specify a space just for children appears to have been in Brookline, Massachusetts. Celia Lascarides sent me details from their Preservation Commission to document the 1871 purchase (\$5,878.50) for their Cypress Street Playground. Jane Addams started a model play yard in 1892 at Chicago's Hull House and soon other kindergartens designated areas for children's outdoor activities. By 1904, Los Angeles

established the nation's first Playground Department to provide safe alternatives to games on the streets. Progressive educators and public health authorities became interested in outdoor activities for school-age children. Their concerns led to the 1906 organization of the Playground Association of America, with the original emphasis upon team sports. After changing its name to the national Recreation Association, it slowly began to provide "tot lots" for younger children with the installation of swings, seesaws, climbing structures, and slides—and shaded benches for adults.

Preschool playgrounds equipped for young children came with federal sponsorship of WPA nursery schools during the depression of the 1930s. The NANE (now NAEYC) was influential in their establishment. For example, Christine Heinig's *Housing and Equipment Bulletin* (1934) gave directions for making simple things like a wooden "rocking boat" to develop large body muscles and facilitate social interaction. This bulletin and NANE publications were guides for federally funded child care centers during World War II and for 1950s' parent cooperative nursery schools. They gave ideas for equipment that could be made by parents or local handymen using old tires and concrete pipes, or constructed from wood and other common materials. Large wooden blocks, planks, and other items were available for the teachers and children to use for improvised constructions. The adoption of metal slides, swing sets, and jungle gyms seems to have begun in the WWII Lanham Act centers that were operated by public school districts.

Our NAEYC publications of the 1950s and '60s are replete with accounts of experiential learning about the natural world, even when it was about something so seemingly insignificant as the metamorphosis of the caterpillar on a weed growing under the slide, as a San Francisco director reported in 1966. Katherine Read Baker's *Let's Play Outdoors* (1966) was widely read. Frost and Klein reviewed theories of children's play and illustrated typical equipment in *Children's Play and Play-*

grounds (1977). They emphasized safety factors, noting that climbing equipment was often placed on cement slabs and that swings with heavy wooden seats were dangerous. Their inspection of several hundred playgrounds found that most were "hazardous, inadequately equipped, and inappropriate to the development period" of the children they served (p. 55). This concern was not limited to the United States. After the first mandatory Playground Safety Standard was adopted in West Germany in 1975, Kompan decided to market only approved equipment. By 1983, their Danish company had started a worldwide comparative study of standards. Other manufacturers soon followed, with the added threat of injury lawsuits influencing the shift to safer commercial structures. By 2002, this threat has also led to legislation restricting children's access to the remaining segments of the natural world or to playing in the neighborhood streets.

One probable factor in the move to recycled plastic was legislation developed with input from the preschool associations in the late 1960s. Its goal was to provide federal funding to support a nationwide network of child care centers. By the time it was vetoed by President Nixon in 1971, manufacturers had been alerted to the potential profits of the "child care industry" and the coincidental development of recycled plastics guaranteed not to split, rot, or need painting led to a colorful new phase. (We might theorize that the "recycled" tag also has made it seem more ecologically acceptable.) At the same time, corporate child care centers appeared on the scene, and they introduced business methods designed for profit. Outdoor equipment made to look like dinosaurs, mushrooms, or other fanciful creations not only impressed parents with their "cuteness" and bright color combinations but fit into the preconceptions of young children who had been watching television since infancy. Another factor emerging in the past few decades has been the threat of massive insurance settlements, with commercial plastic structures placed upon rubberized padding being much safer than those previously used.

It might be questioned that this negates the need for children to learn to be careful of themselves and others as they climb and slide in the preconfigured yard. However, one result has been to restrict public land access for play.

Within the past few years, there has been a trend toward plastics in neutral wood colors. Across the nation there is renewed interest in old Froebelian ideas about children's garden plots and in the Reggio Emilia system. The Froebel Foundation model school in Grand Rapids features extensive natural environments. The London playground built to honor Princess Diana has no plastic materials and is designed to allow for children's creative ideas in a peaceful natural setting. Growing interest in feng shui, the ancient Asian practice of creating harmony in the environment, may contribute to changing the appearance of young children's outdoor playspace. Kaleidoscopic bright colors typical of recycled plastic are stimulating, according to this belief, while a more serene natural atmosphere would lead to cooperative learning and physical health.

When considering the benefits of outdoor play, we must distinguish between games with adult rules and play that is unrestricted except for safety and a few other boundaries. Observers have noted that children learn to distinguish between make-believe and reality. They develop rules and codes of behavior, internalizing the need to restrain their impulsive behavior and gain practice in coping with the tasks of life ahead. As Karl Groos wrote more than 100 years ago, after describing the biological significance of various young animals as they practiced behaviors that would help them survive in the wild, perhaps the very existence of childhood is to give time for outdoor play.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Making Outdoor Learning Possible

by Jim Greenman

In Minneapolis there is a skyway system that connects the second floors of buildings throughout the downtown area—offices, hotels, stores, and residential developments. There is also a domed stadium and there are domed tennis courts, skating rinks, swimming pools, and indoor fountains. In Minneapolis and many other places, one can seriously ask: Why go outside to the world of snow and ice, heat and mosquitoes, auto exhaust, and rain?

The outdoors has weather and life, the vastness of the sky, the universe in the petals of a flower. But many programs, following the models of schools, have seen the very qualities that make the outdoors different as obstacles or annoying side effects. The openness is tightly constricted; weather provides a reason to stay in, and landscape and life are things to be eliminated. A playground, considered the primary, if not the only outdoor setting, performs the same function as a squirrel cage or a prison exercise yard—it is a place for emotional and physical release and a bit of free social interchange.

Playground Types

Traditional playgrounds in schools, centers, or parks are open areas dotted with various pieces of unrelated commercial, usually metal, large muscle equipment such as slides, swings, climbing domes or bars, spring animals, seesaws, and so on. Children play on one piece of equipment until bored and then move on to the next. Play tends to be disjointed. These playgrounds encourage large motor play and little else. Children have no way to change the setting. Creative and social play tends to be limited to adding an element of risk in using the equipment, such as swinging together or jumping off slides. The amount of motion and varying heights, and an often inadequately impact-cushioning surface, result in safety problems. Children least prefer traditional play areas when given a choice (5).

Developed as an alternative to traditional playgrounds, **creative playgrounds** are coordinated and designed or adapted for a site. These include both modular coordinated play installations and *one-off* architectural designs which have a sculptural or natural quality in the forms and materials. Often the landscape is used to create berms for slides and tunnels. There usually are multiple levels of platforms, steps, and slides for climbing, chasing, and hiding. At first largely static except for occasional cargo nets and wobbly bridges (a reaction to the dangers of traditional playgrounds), today there are installations that include varieties of swings, moving parts, and cable slides. Creative playgrounds can support a variety of motor and social play in a compact area, if they include moving parts. They are usually attractive to both adults and children. They rarely, however, have any provisions for loose parts.

Typical nursery and child care play areas lean toward a blend of traditional and creative, with perhaps a playhouse and sandbox thrown in, and a trike path if size permits.

There are alternatives common in other countries but relatively rare in the United States. **Adventure playgrounds**, found in Europe, literally grew out of the rubble of World War II. Sometimes called workyards, adventure playgrounds are the ultimate expression of the power of loose parts. The idea, expressed originally in the 1930s by Danish architect C. Th. Sorenson, was "sort of a junk playground in which children could create and shape, dream and imagine, and make dreams and imagination a reality." Virtually nothing is static (or expensive). They are filled with junk—wood, rope, canvas, tires, wire, bricks, pipes, rocks, nets, logs, balls, abandoned furniture, wheels, vehicles, and unimaginable and assorted artifacts.

Adventure playgrounds have play leaders who help children to build, demolish, repair, incinerate, dig, flood, and play safely. Tools are provided and their use supervised; fire and water are considered important elements of the playground. Children are allowed to

create complex structures, both physical and social ("Girls keep out on Tuesday"). There is a wide variety of cognitive, social, and motor play. As a play leader expressed, "The secret of a successful adventure playground is in its continual development; it is never complete, never developed. It is sort of a *terrain vague* that can be many things to children."

Adventure playgrounds are most often designed for school-aged children. Supervised adventure playgrounds have an excellent safety record and have proven to be highly popular with children. Despite this, they are rare in the United States and likely to remain so. The extreme caution due to the insurance crisis, the likelihood that adults would have trouble accepting the unsightly "junkiness" of the play area (6), and just the lack of tradition of such playgrounds makes the spread unlikely in the near future.

However, a variation of adventure playgrounds, also called Creative Playgrounds, originating in Sweden, incorporates loose parts to allow children to construct their own environments. Instead of junk and tools, modular building pieces and panels are available for construction. This form of adventure play as part of a child care program or school is eminently feasible as demonstrated by Play Mountain Place in Los Angeles (3).

Environmental play yards, which encourage an active interaction with plants and animals, water and dirt, weather, and the life cycle, offer children education at its most compelling. The Environmental Yard at Washington School in Berkeley, California, offers the most fully realized expression of the idea. A one-and-a-half acre asphalt traditional playground has been transformed to incorporate miniature ecosystems—the meadow, willow island—ponds, pathways, gardens, and animals.

Here and there throughout the country are child care programs in semi-rural areas that are able to incorporate many of the same experiences. For urban programs, a garden, shrubs, a birdbath, and trees are a start.

The Outdoors in Children's Lives

Richard Dattner (2) gives testimony to a vision of a playground very different from the exercise yard, one reflecting Buckminster Fuller's view that playgrounds should be renamed "research environments":

A playground should be like a small-scale replica of the world, with as many as possible of the sensory experiences to be found in the world included in it. Experiences for every sense are needed, for instance: rough and smooth objects to look at and feel; light and heavy things to pick up; water and wet materials as well as dry things; cool materials and materials warmed by the sun; soft and hard surfaces; things that make sounds (running water) or that can be struck, plucked, plinked, etc.; smells of all varieties (flowers, bark, mud); shiny, bright objects and dull, dark ones; things both huge and tiny; high and low places to look at and from; materials of every type, natural, synthetic, thin, thick, and so on. The list is inexhaustible, and the larger the number of items that are included, the richer and more varied the environment for the child.

Most programs do not have the outdoor playground space to create miniature worlds. But a program playground exists in a larger outdoor context. If the playground is planned as part of that whole, the child's outdoor experience may reach Dattner's ideal. The context includes:

- all the accessible outdoor space—the sidewalks, the city parks, the stream nearby.
- all the time the children have access to the outdoors—daily, weekly, seasonally.
- the outdoor experiences that children have outside the program—in the yard, on the street, in the park.

In the urban areas and areas with harsher climates, the outdoors is a precious resource to be carefully maxi-

mized when it is available. In some fortunate areas with year-round gentle climates and open spaces, the outdoors is a way to extend classroom boundaries to the horizon daily.

Outdoor Places

What outdoor places benefit children?

Places for Active Motor Play

Children need physical challenge from a playground: the opportunity to literally reach new heights and run wild. They need the stimulus of risk; they need choices in climbing, sliding, swinging, and so on so that they can determine the excitement and challenge they are ready for. Playgrounds are where reputations are made—whether 4- or 14-years-old—and structures are necessary that allow derring-do with which to build self-esteem. Equally important are break away points for those who change their minds or need time to act (much like adults on a ski slope)—alternate routes up and down, graduated challenge, and a range of accomplishment opportunities that allow all children to build self-esteem without pressure.

Places for Swinging: Swings with seats, tire swings, rope swings, porch swings, hammocks. Different swings provide different experiences with time, motion, and body control. "Swing ropes for example can be long, suspended far above the ground, giving a long incredible WHOOSH—moving through a big space with each swing. They can be short—a fast-moving, back-and-forth, round-and-round kind of ride" (Moore, R. in 1, p. 233). Add the short circular motion of tire swings, the back and forth of porch swings and hammocks, the experience of standing or lying on the swing, swinging together or in tandem and the variety of learning experiences are evident. Three-chain tire swings are very versatile and safe; they work well with very young children and with children with disabilities.

Places for Sliding and Rolling: High, low, wide, narrow, curvy, straight, fast, slow. Slides offer wild release, experiments with friction, social experiences,

and all sorts of physical challenge. Set in a hill, slides can be safe for the youngest children and for children with disabilities. Wide slides offer more possibilities for experimentation with the body and for social sliding.

Children love to roll themselves and objects down slopes. Walking, pulling, or hauling up a slope provide challenge. Summer's rolling hill becomes a water slide with a plastic tarp or winter's sliding spot. Tires, balls, and teachers all roll nicely. Railings can become courses for rolling objects by adding pipe or tubes.

Places for Climbing: Trees, live or dead; platform climbers; ropes; ladders; sculptures; tire trees; pole mountains. Anything that can be climbed will be climbed. The exhilaration and the challenge of climbing depends not just on the height but on the size and spacing of footholds and handholds, whether the climbing structure moves like ropes or branches, whether the surface is wood or metal, whether it is open underneath, and so on. Large metal frames and jungle gyms often take up a lot of space and get relatively little use, unless loose parts are available for adding on. Climbing structures need multiple levels of difficulty and stopping points. Creative play installations with platforms, timbers, tires, and nets fill this need.

Places for Jumping: Platforms, poles set in the ground, climbers, anything that allows a secure launching point and a safe, absorbent landing area away from the traffic flow. Plato saw the model of true playfulness in the need of young children, animal and human, to leap. Leaping expresses faith in yourself and your environment. The opportunity to jump from different heights and land safely is incomparable, a test of self and gravity.

Places for Running: Open space, pathways, or tracks which allow all kinds of running. Children run this way, that way, back and forth, round and around. Toddlers and other steady walkers need smooth, flat surfaces.

Places for Throwing and Kicking: Walls and nets, hoops, barrels, trees, as targets; balls, bean bags, plastic discs, and (when appropriate) rocks and sticks as missiles. Throwing, heaving, hurling something to someone, at something, into something belongs on a playground. Humankind probably began kicking during the first boring walk—kicking rocks and sticks and small animals. Children love to propel things and feet do the job with dispatch.

Places for Bouncing and Balancing: Beams of different sizes, widths, and heights; logs, poles, boulders; wobbly balancing surfaces, movable balance beams, and planks. Children will balance on everything from a crack in the sidewalk to railings on a deck. They love to balance on their feet, stomachs, heads, and hands.

Bouncing requires knees; variations come from different surfaces—planks with give, spring platforms or spring animals, trampolines or rebounders.

Places for Traveling, Riding, and Transporting: Children love pathways and sidewalks that provide a here and there and routes in between: to journey, to race, to haul, to ferry, to caravan. Institutional wheel toys are far superior to home-use models. Vehicles that encourage hauling or two child use have special value.

Carts and wagons for transporting children on walks allow toddler treks that don't leave the caregiver with two or more weary adventurers to carry the final block. The carts that attach to the back of adult bikes provide wonderful personalized bike trips for one to three children.

Places to Move Slowly: In a Japanese garden, one moves slowly along a path, eyes alert to new views, body shifting as the path changes beneath one's feet. On a lazy day, the urge to float and dawdle can become overpowering; on a gray day, the need to hold back can take over. Stone and wood paths or patterned walks that encourage deliberate motions delight children and adults.

Places to Be Human

Places to Watch, to Wonder, to Re-treat: When the challenge of the climber or the commotion on the swings is too much, where is there to go to be alone or with a trusted friend or fellow temporary outcast? Where is the cork tree for smelling the flowers? Where can I observe my next challenge? Quiet spaces scaled to child size—grottoes, nests, perches, miniature picnic tables off a beaten path—all provide wayside rests. Greenery has a calming effect.

Places to Sleep: It is common in European programs to sleep outside or on sleeping porches. Occasionally taking naps outside provides children with memorable experiences.

Places to Eat: What makes life interesting is variation; and when outdoor eating (and cooking) is possible, children are delighted (and so are the local wildlife).

Places to Be Diapered and to Go to the Bathroom: Access to the bathroom or diaper table will determine the amount of outdoor play.

Places to Discover: "I do not know what I may appear to the world; but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, while the great ocean of truth lay all undiscovered before me" (Isaac Newton).

Taking advantage of nature, the busy city of life behind the fence, the machinery of bikes or hinges or pulleys, the aerodynamics of kites—allows great discoveries even in small areas.

Places that Feel Different: Sunny and shady spots, breezy spaces, still spaces.

Once, on a summer day, I was busy in the shop, and Mequsaq and Pipaluk were playing outside with their little friends. Their game was to crawl up on a big slanting rock and slide down its smooth side. Up and down they went in one wild tumble. Then I heard their grandmother, Kasalum, come out and

shout to them: 'Oh no, dear children, don't do that! Think of your poor father who has to drive long stretches in the cold and dark to get skins for your pants. Now you are wearing off the fur. It is unreasonable, you must not do it!'

Then she went back inside, and the children resumed their sliding down the rock, a wonderful game in any latitude! — from The Book of Eskimos, by Peter Feuchern (4)

References

- (1) Coates, G. (1974). *Alternate Learning Environments*. Stroudsburg, PA: Dowden, Hutchison, and Ross.
- (2) Dattner, R. (1969). *Design for Play*. Cambridge, MA: MIT Press.
- (3) Ellison, G. (1974). *Play Structures*. Pasadena, CA: Pacific Oaks College.
- (4) Feuchern, P. (1963). *The Book of Eskimos*.
- (5) Noren-Bjorn, E. (1982). *The Impossible Playground*. West Point, NY: Leisure Press.
- (6) Spivak, M. (1974). "The Political Collapse of a Playground," in Gary Coates (editor), *Alternate Learning Environments*.

Excerpted from *Caring Spaces, Learning Places*, Exchange Press, 2005. Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 1.1. True/False

- ___ 1. Jim Greenman writes that the natural world is a school for young children.
- ___ 2. Nature provides opportunities for children to experience reality.
- ___ 3. The abundance of shapes, sizes, colors, textures, smells, and tastes in nature provides opportunities for children's perceptual-motor learning and sensory development.
- ___ 4. Curiosity is an essential trait of an effective teacher of young children.
- ___ 5. Ideal outdoor play areas allow for children's creative ideas in a peaceful natural setting.

- ___ 6. Traditional playgrounds encourage large motor play as well as social interaction.
- ___ 7. Including loose parts in outdoor play areas allows children to construct their own environments.
- ___ 8. When given a choice between traditional playgrounds, creative playgrounds, or environmental play yards, children usually prefer traditional playgrounds.
- ___ 9. Children benefit from outdoor places that provide opportunities for physical challenges.
- ___ 10. Swings provide experiences of body control.
- ___ 11. Jim Greenman notes that three-chain tire swings work well for children with disabilities.
- ___ 12. Sliding and rolling offer opportunities for physical and emotional release.
- ___ 13. Ideal climbing structures have multiple levels of difficulty and multiple stopping points.
- ___ 14. Leaping allows children to experience faith in themselves and in their environment.
- ___ 15. Children's outdoor places should provide opportunities for them to watch, wonder, and discover.

(1. T, 2. T, 3. T, 4. T, 5. T, 6. F, 7. T, 8. F, 9. T, 10. T, 11. T, 12. T, 13. T, 14. T, 15. T)

* * *

Correct Statements for False Self-Check Items

Items 6 and 8 in Self Check 1.1 are false. Please review the following correct statements.

- 6.** Traditional playgrounds encourage little other than large motor play. Because children have no way to change the setting, creative and social play tend to be limited to adding an element of risk in using the equipment, such as swinging together or jumping off slides.
- 8.** When given a choice, children show the least interest in traditional play areas.

Natural Connections: Children, Nature, and Social-Emotional Development

by Janet E. Thompson and
Ross A. Thompson

Most people know intuitively that there is something magical about the experiences offered to children by the outdoors. We grew up hearing our parents and grandparents tell us stories about their childhood summers spent playing outside, interrupted only by a parent's call to come inside for dinner. It may have been a grandmother's accounts of life as a young child on an Iowa farm, exploring the fields, streams, and woods with her brothers and sisters. Or a father's nostalgic memories of summers spent tagging along with the neighborhood's "big kids" and being allowed to enter into their suburban "kid culture" of alleys and yards—building secret hideouts, collecting treasures, and making up their own games.

But we who advocate for children's greater access to rich outdoor experiences can no longer rely only on nostalgic anecdotes. Even our first-hand observations of the children in our care are not enough. Our 21st century society demands research to give credibility to our practices. We must be able to show a link between young children's connections with nature and their healthy development. The good news is that we, as child developmentalists, can meet that challenge. We present here some of the links we can find when we apply knowledge from the substantial research literature on young children's social-emotional development to the much newer area of children's connections with nature.

Healthy social and emotional growth depends on young children's access to the kinds of social interactions, experiences, and environments that will support them. We believe that these appropriate supports are enhanced by the presence of a rich outdoor environment. Early experiences with nature, especially in the company of parents,

teachers, and peers, often leave lasting impressions that make the lessons learned there more salient and profound. Two basic conclusions from research guide our discussion of the ways children's connection with the natural world can foster their social-emotional growth:

First, young children acquire social and emotional competence in ways that are often different from how they acquire competence in tasks like naming letters or numbers. Social-emotional skills emerge through children's experience in close relationships and the varied activities that occur in relational experience, such as shared conversation, warm nurturance, and guided practice in learning capacities for sociability, responsibility, and self-control. Social and emotional skills also develop through the shared and solitary activities of a developmentally appropriate, enriched child care or preschool setting, including the opportunities for outdoor experiences that it provides. In such settings (as well as at home) young children develop understanding of other people's feelings and needs, are encouraged to feel empathy and caring, learn to manage their own behavior as responsible group members, and acquire a variety of other prosocial skills.

Second, and perhaps most importantly, play is a central context for social and emotional development in early childhood. Research shows that many kinds of play contribute to social-emotional competence in preschoolers; including pretend play, free exploration of objects in the environment, play through which children build and create (constructive play) and games with rules. Natural outdoor environments provide a context in which each kind of play is often more complex, extended, and self-determined. In natural spaces, children have a freedom to play in ways rarely possible in even the most developmentally appropriate indoor environments.

Self

The development of self includes the process of gaining self-awareness, self-esteem, and developing an ever-deep-

ening understanding of others. Research shows that in the course of their play and interactions, young children are developing an emerging awareness of their own characteristics, including likes and dislikes, abilities, differences from other people, and the ways that others value them. This process requires broad and varied experiences and the opportunity to pursue their own ideas and interests to find out where they lead.

Jane Perry writes of the features of the play yard ecology, in contrast to the classroom ecology. She reminds us that whereas the classroom ecology tends to provide children with explicit cues for activities and play scripts, the outdoor ecology provides more flexible cues, as well as invitations to invent more open-ended themes and roles. Loose parts and a lack of predetermined functions for the elements of a natural outdoor play space invite extended experimentation and adventurous exploration of one's own skills and dispositions, as well as those of one's playmates.

Growth of other competencies related to the development of self can also be positively associated with outdoor experience. We know from a large body of research that self-regulation requires the ability to sustain focused attention. Current research into attentional disorders has shown that children who have available views of nature from their classrooms are better able to focus their attention and control their impulsive behaviors. Other studies show that children who have learning or behavioral challenges tend to perform better in a natural outdoor setting. Nature evokes positive feelings that generalize to children's interactions with other people and their activities. Larger outdoor spaces allow for privacy and observation from a distance for children with slow-to-warm-up temperaments. Children can also withdraw when social interactions become too intense and find spaces in which to emotionally regroup.

The outdoors offers an implicit invitation to young children to explore and take initiative in their own learning. A teacher does not need to encourage a

child to pick up a shovel and dig into wet sand, crunch through piles of fallen leaves, or take note of two squirrels chattering as they race up a tree trunk. And, of course, splashing through puddles after a rain engages all the senses and prompts a stream of "Why?" questions.

The development of self also involves social and emotional understanding. Capacities for empathy and caring can be seen most readily outdoors, even in children who may have a hard time being kind and gentle with their peers. Randy White, citing the writings of David Sobel, notes that children feel a natural kinship with animals, and invest in them emotionally. He contends that one of the best ways to foster empathy and a caring attitude during the early years is to provide opportunities for nurturing relationships with animals. Those of us who spend time with young children outdoors have ample opportunity to model a similar caring attitude and sense of responsibility toward other living things. Tending a vegetable garden, watering flowers, and taking care not to trample small plants are behaviors children readily imitate and then begin to initiate on their own.

Social interaction

Social interaction is at the heart of young children's social-emotional development. This includes interactions with familiar adults, interactions with peers (including active and intentional cooperation, increasingly complex episodes of pretend play, and development of conflict resolution strategies), group participation, and developing cooperation and responsibility toward others. The outdoors is a setting that stimulates child-initiated interactions, especially with peers, and provides valuable opportunities for young children to experiment with the elements of peer culture.

The outdoors is the one place where adults are inclined to give groups of children freedom to choose their own partnerships and to play out the themes of cooperation and assertiveness, inclusion and exclusion that are new experiments for them and are issues that will come to dominate their elementary

school years. Children play chase, shriek in pretend terror, and shift scripts and roles frequently, giving each child the experience of being both the pursuer and the pursued, the tiger threatening to pounce or the mice scurrying to hide. They can finally use their "outside voices" and employ assertive language to make their feelings known to playmates. As Jane Perry points out, wild running games are the children's way of feeling connected.

Adults in an outdoor setting often relate to children more informally. They place props and other loose parts in the environment to provoke or build on observed interests. They assist children with language and other peer group entry skills. Beyond supportive functions, adults foster children's social development by becoming engaged in minor play roles from the sidelines, offering comments and questions to facilitate peer interactions and elaborating on children's themes. Research has shown that the longer the pretend play script is sustained, the more it contributes to children's social and emotional skills.

In the self-directed play of the outdoor play space, children are motivated to sustain social play for longer periods. In the process, they learn to rapidly interpret each other's cues, employ sophisticated perspective-taking skills, modify rules, and negotiate conflicts. Achieving proficiency in all of these areas is central to social-emotional growth.

Relationships

With relationships, we come full circle—back to the emotional salience of close relationships shared in those treasured outdoor places of childhood. Whether the relationships are attachments to parents, close relationships with caregivers, or friendships with special peers, young children need a deep reservoir of positive shared experiences with others in order to form meaningful, sustained relationships with them. These positive relational experiences can occur in any context—home, school, or outdoors. But outdoor play provides special opportunities for the development of close relationships with adults and peers.

In these contexts, adults are more likely to allow children to take the lead in shared activity, responding to the child's initiative with no predetermined agenda, and looking for learning opportunities in whatever has attracted the child's attention. Outdoor play is also likely to provide a foundation for deepening friendship with peers as children create their own adventures, discover another's complementary interests, and respond to another child's anger or distress with understanding. In many respects, the freedom of outdoor activity provides an inviting context for deepened understanding of another. Thus when we combine the crucial elements—sensitive, responsive interactions, extended child-directed imaginative play, motivation to pursue one's own learning, and situations that elicit empathy and caring—the evidence is strong that natural outdoor spaces can provide a provocative context in which to nurture children's close relationships.

Conclusion

Although research on the influence of children's experiences with nature in the outdoors is only beginning, the wealth of research on social and emotional development suggests that perhaps our parents and grandparents were right. In the unstructured, self-determined, and sometimes unexpected opportunities of natural play settings, young children have a chance to discover more about themselves and other people, to learn how to interact constructively with others, and to create the foundation for close relationships in ways that are unique and developmentally valuable.

Sources

- Blaustein, M. (2005). "See, hear, touch! The basics of learning readiness." *Beyond the Journal*, NAEYC. Retrieved September 14, 2007 from www.journal.naeyc.org/btj/200507/01Blaustein.asp
- Greenman, J. (2005). *Caring spaces, learning places: Children's environments that work*. Redmond, WA: Exchange Press.
- Perry, J. (2001). *Outdoor play: Teaching strategies with young children*. New York: Teachers College Press.

Perry, J. (2004). "Making sense of outdoor pretend play." In D. Koralek (Ed.). *Spotlight on young children and play* (pp. 17-21). Washington, DC: NAEYC Press.

Rivkin, M. S. (1995). *The great outdoors: Restoring children's right to play outside*. Washington, DC: NAEYC Press.

White, R. (2004). "Young children's relationship with nature: Its importance to children's development and the earth's future." Retrieved August 26, 2007 from www.whitehutchinson.com/children/articles/childrennature.shtml

White, R. (1997). "Sometimes you just gotta make mud pies: Children's adventure play gardens." Retrieved March 6, 2007 from www.whitehutchinson.com/leisure/articles/84.shtml

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 1.2. True/False

- ___ 1. Children's social and emotional skills develop through their experiences in close relationships that involve shared conversation, warm nurturance, and guided practice in sociability, responsibility, and self-control.
- ___ 2. Outdoor experiences can give children practice in understanding other people's feelings and needs and managing their own behavior as responsible group members.
- ___ 3. In natural spaces, children have a freedom to play in ways rarely possible in even the most developmentally appropriate indoor environments.
- ___ 4. Compared with indoor classroom environments, outdoor environments provide more flexible cues for activities and play to help children become aware of their own characteristics, including likes and dislikes, abilities, differences from other people, and the ways that others value them.
- ___ 5. Compared with indoor classrooms, outdoor environments provide more opportunities for children to invent open-ended play themes and roles and to explore and take initiative in their own learning.

- ___ 6. The absence of predetermined functions for the elements of natural outdoor playspaces encourages exploration of the child's own abilities, likes, and dislikes as well as those of other children.
 - ___ 7. Outdoor activities encourage sustained focused attention, which is essential for the development of self-regulation.
 - ___ 8. Tending growing plants and nurturing animals foster empathy and a caring attitude in children.
 - ___ 9. Perspective-taking and conflict negotiation are important social interaction skills that children should begin to develop.
 - ___ 10. Outdoor activities stimulate child-initiated interactions with peers and provide opportunities for children to learn social interaction skills.
 - ___ 11. In outdoor (rather than indoor) play activities, adults are more likely to allow children to initiate activities and discover learning opportunities in whatever attracts children's attention.
 - ___ 12. Establishing close relationships with their playmates is usually much easier in the indoor classroom than in outdoor playspaces.
- (1. T, 2. T, 3. T, 4. T, 5. T, 6. T, 7. T, 8. T, 9. T, 10. T, 11. T, 12. F)

* * *

Correct Statement for False Self-Check Item

Item 12 in Self Check 1.2 is false. Please review the following correct statement.

12. Because extended child-directed imaginative play, motivation to pursue one's own learning, opportunities for sensitive, responsive interactions, and situations that elicit empathy and caring are all encouraged in natural outdoor spaces more than in indoor spaces, outdoor spaces can provide an ideal context for the development of children's close relationships with their peers.

Nature — A Powerful Tool for Fostering Language and Literacy

by Ruth A. Wilson

One of the most dramatic stories I heard during my 35 years as an educator was shared by a preschool teacher working with children with special needs. This teacher, Linda, told me about a four-year-old girl with autism who had been in her classroom for three months before she spoke her first word or made any obvious attempt to communicate. The breakthrough came early in the day as the children were arriving at school.

Linda had emptied the water table and was now using it to incubate some duck eggs. Over the past several days, she had shared books about ducks and how they hatch. The children were excited and frequently checked on their progress. They knew what to look for because Linda had carefully explained how the baby ducks would peck their way out of the eggs.

Ellie, the little girl with autism, was one of the first children to arrive at school that day. Ellie's mother brought her into the classroom and was asking Linda about an up-coming event at the school. Ellie walked over to the duck eggs and cried, "Look!" One of the eggs had cracked, and a duckling's beak and eyes were clearly visible. Linda and Ellie's mother first looked at Ellie and then at each other. Neither one could believe what they just witnessed. Ellie had never used words at school before, and the few words she used at home were always rote and prompted by an adult. In response to the duckling beginning to hatch, Ellie had spoken spontaneously with a great deal of emotion. Linda and Ellie's mother were soon hugging each other and Ellie—all three of them contemplating the wonder of the moment.

A new living creature had just emerged from the confines of a physical shell, and a four-year-old child had broken through a formidable communication barrier.

Fostering language development

I share this story of Ellie to draw attention to several concepts relating to language development and the power of nature. For language development, whether for children with special needs or typically-developing children, a key component in the process is having a message important enough to motivate a child to share it with others. For some, connecting with others in a social context is sufficient motivation to use language. When we say "hello" and share ideas with someone else, our "reward" is the connection we establish with another person. Children with autism usually do not find this connection rewarding enough to put forth the effort to communicate. Watching a duckling emerge from an egg, however, is exciting—in fact, exciting enough for Ellie to want to share her discovery with others.

Another story comes to mind—this one of Helen Keller. Helen was blind and deaf and using very limited language at the age of seven. Her teacher, Anne Sullivan, had been trying without much success to teach Helen to communicate by spelling out words in her hand. Helen did not fully understand the meaning of words and was resisting Anne's efforts to establish a way for her to communicate. All this changed when Anne led Helen to a water pump as someone was drawing water. Anne placed one of Helen's hands under the spout. She spelled the word "water" in Helen's other hand. As Helen herself later stated, it was at this moment that the mystery of language became clear to her (6). Within the next few hours, Helen learned the spelling of 30 new words and started using them in a meaningful way. Perhaps it was the rich sensory experience of cool water gushing over her hand that helped Helen make the connection between the word as it was spelled into her hand and the water itself.

Sensory experiences paired with words give young children the foundation for learning language and related concepts. Children don't learn such concepts as "purple," "soft," "bird," and "jump" by

listening to someone talking about what these words mean. Children need direct experiences with these concepts for the words to be meaningful to them. Well-chosen materials for young children feature a variety of colors, sizes, shapes, and textures. Such materials also invite hands-on manipulation, giving children opportunities to pinch, poke, squeeze, taste, shake, and re-shape. As children manipulate these materials and interact with others, they learn related vocabulary and how to use words to communicate.

Nature and children

While commercially-made materials are often designed to match the language and learning needs of young children, the richest source of materials for stimulating language and other areas of child development is the natural world (8). The natural world is, in fact, "the most 'information-rich' environment we will ever encounter" (1, p. 56). Natural materials are rich in sensory stimulation and invite exploration and experimentation. They also provide "especially distinguishable objects to differentiate and classify" (1, p. 60). Fortunately, the world of nature is readily available, and children are naturally drawn to it.

E. O. Wilson, a scientist at Harvard University, indicates that humans have an innate affinity for the natural world. He called this attraction "biophilia" and described it as an urge to affiliate with other forms of life (2, 7). This natural affinity suggests that teachers and parents would do well to make the natural world their first choice for materials and experiences to support young children's language development.

Fostering early literacy through nature-related experiences

Turning to the natural world for materials and experiences fosters learning in other areas, as well. It adds to the enjoyment factor of learning to read, write, and make sense of the world (3). It can also promote an enthusiasm for books (5). Following are a few suggestions on

how to use nature and the out-of-doors to foster early literacy:

- **Establish an outdoor literacy center.** This involves selecting an appropriate location, providing a place to write and draw, and adding interesting literacy-related props. Props should include a variety of books (fiction and nonfiction) and materials for writing and drawing. Maps, brochures, photos, the weather section of the newspaper, field guides, seed catalogues, and magazines also make inviting props. At least some pictures and text should relate directly to what children are likely to see and experience in the outdoor setting, such as birds, trees, sky, rain, soil, and squirrels.
- **Conduct "story time" outdoors.** Ideally, a special "gathering place" should be used for sharing books with a group of children. This place should be conducive to listening and discussion. While all types of books can be shared in an outdoor setting, books that focus on the natural environment will have special meaning.
- **Provide an outdoor stage.** A stage, whether this is an actual platform or just a designated area, invites a performance. Performances often tell stories and may be based on a familiar children's book or "authored" by the children themselves.
- **Post signs.** Outdoor signs can be used to label different activity areas (blocks, climbing area, art area) and elements of the natural world (maple tree, strawberry plant, sandy soil).
- **Provide observational aids and recording tools, such as magnifying glasses, rulers, measuring cups, clipboards, pencils, tree and insect identification cards, and notepads.** These materials encourage children to look more closely and, in the process, develop such visual perception skills as attending, discrimination, identification, classification, and categorization. These skills are a part of visual literacy, which some researchers note is one of the critical areas in the language arts (4).

Multiple benefits of linking children and nature

Tapping into the power of nature to help children grow and develop offers special benefits to both children and the natural world. For the children, positive experiences with nature help them grow healthy in mind, body, and spirit. For the Earth, early positive experiences with nature promote a life-long appreciation and respect for the beauty, health, and integrity of the natural world.

References

- (1) Kellert, S. R. (2002). "Values, ethics, and spiritual and scientific relations to nature." In S. R. Kellert and T. J. Franham (Eds.), *The Good in Nature and Humanity*. Washington, DC: Island Press.
- (2) Kellert, S. R., & Wilson, E. O. (1993). *The Biophilia Hypothesis*. Washington, DC: Island Press.
- (3) Kupetz, B. N., & Twiest, M. M. (2000). Nature, literature, and young children: A natural combination. *Young Children*, 55(1), 59-63.
- (4) Machado, J. M. (2007). *Early Childhood Experience in Language Arts: Early Literacy*. Clifton Park, NY: Thomson Delmar Learning.
- (5) McKenna, M. C. (2001). Development of reading attitudes. In L. Verhoeven & C. Snow (Eds.), *Literacy and motivation: Reading engagement in individuals and groups* (pp. 135-138). Mahwah, NJ: Lawrence Erlbaum Associates.
- (6) Royal National Institute of the Blind (n.d.). London. Online at www.rnib.org (accessed November 24, 2006).
- (7) Wilson, E. O. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.
- (8) Wilson, R. A. (2007). *Nature and young children: Encouraging creative play and learning in natural environments*. London: Routledge.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Recommended Book

N*ature and Young Children: Encouraging Creative Play and Learning in Natural Environments* by Dr. Ruth Wilson (2007, Routledge) focuses on the power of nature to promote learning and development. It includes many useful, practical ideas for those working to improve their outdoor learning environment.

From adding richness and variety to learning, to redesigning a playground, this highly accessible text provides a wealth of ideas on how to foster creative play and learning in the outdoor environment with a focus on interacting with the natural world.

Nature and Young Children contains many simple ideas on the type of materials that can be added to encourage observation, exploration and dramatic play as well as guidance on ways to help children meet early development goals through outdoor learning activities.

The book addresses topics such as:

- gardening with young children
- choosing plants for safety, variety and active learning
- making outdoor activities and play spaces accessible for children with disabilities
- involving parents in appreciating and developing the outdoor space and outdoor activities
- dealing with fears, safety and comfort issues.

Nature and Young Children is presented in an effective way to develop environmentally responsible attitudes, values and behaviors and is highly recommended for all early years practitioners and students.

Available in paperback from
Routledge publisher,
www.routledge.com.

Self Check 1.3. True/False

- ___ 1. Having a message important enough to motivate the child to communicate is a basic factor in language development.
- ___ 2. The desire to establish a social connection with others is sufficient motivation for all young children to use language.
- ___ 3. Natural materials are rich in sensory stimulation and invite exploration and experimentation.
- ___ 4. Children are naturally drawn to the world of nature.
- ___ 5. Magnifying glasses, rulers, and measuring cups encourage children to develop skills such as attending, discriminating, identifying, classifying, and categorizing.
- ___ 6. Visual literacy is one of the critical areas of language and communication.
- ___ 7. Combining sensory experiences with words promotes young children's language development.
- ___ 8. Books that focus on the natural environment have special meaning when read to children in outdoor story time areas.

(1. T, 2. F, 3. T, 4. T, 5. T, 6. T, 7. T, 8. T)

* * *

Correct Statement for False Self-Check Item

Items 2 in Self Check 1.3 is false. Please review the following correct statement.

2. The desire to form a social connection with others motivates most children to use language. However, children with autism usually do not find this connection rewarding enough to put forth the effort to communicate. These children often do find experiences with nature exciting enough to stimulate verbal communication.

Early Connections with Nature Support Children's Development of Science Understanding

by Julie Thomas

Jane Goodall, best known as the "chimpanzee scientist," showed considerable interest in science and nature as a young girl. In an often-told story, Jane remembers when her mother found a pile of earthworms under Jane's pillow (1999). Though Jane was only two years old at the time, she well remembers that her mother did not scold her for the slimy mess in the bed. Rather, her mother explained that the worms needed to be returned to the out-of-doors or they would die. In Jane's mind, this guidance greatly influenced her thinking of science in her formative years. Even as a toddler, she was learning to understand the concepts about organisms and their environment. The worms, of course, needed the moisture and nutrients found in soil; but plants needed the benefit of the worms' tunneling, and animals looked to the worms as food.

Certainly, developing complex understandings of the interdependence of living things seems a lofty goal for preschool-aged children. However, guided nature studies can provide important, conceptual frameworks for later learning. This article provides some insight into these benefits and an understanding about how early nature experiences actually teach science concepts.

What is science?

Science is a unique way of thinking and knowing about the world. Scientists use particular investigative processes such as observations, questions, and experiments to construct reasonable explanations of the world around them. Thus, science is understood as an evidence-based endeavor. Science knowledge has been generated over time; and this historic process of science inquiry has taught us much about natural objects, events, and phenomena. Scientists, however, continue to review and ask

questions of other scientists' work. Thus, science will never be finished; much more remains to be understood (National Research Council 1996).

Why science in preschool?

Rachel Carson (1956) expressed concern that young children have at least one adult to help them keep alive their "inborn sense of wonder" (p. 45) and enthusiasm for exploring the natural mysteries of the world. She pressed for adults to "pave the way for the child to want to know" explaining that:

"If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the senses are the fertile soil in which seeds must grow. The years of early childhood are the time to prepare the soil" (p. 45).

Current brain research tells us that children are wired to learn from birth. From an early age, it is readily apparent that children are highly engaged when provided the opportunity to explore their natural world. Conezio and French (2002) have learned that preschool-age children are able to "create strong and enduring mental representations of what they have experienced in investigating the everyday world" noting they "readily acquire vocabulary to describe and share these mental representations and the concepts that evolve from them" (p. 12).

Preschool children follow a natural tendency to explore their surroundings—and even playtime activities easily engage them in science. Teachers can help encourage questioning and investigating as they introduce children to scientific thinking. In later years, school lessons will help children connect their naïve theories and experiences with the broad concepts of science. Klein and Hammrich (2000) argue that teacher-directed, hands-on learning allows young children to gain information, explore their surroundings, and develop meaning while honing their communication and problem-solving skills. As Henniger (1987) points out both directed and playful experiences provide "excellent opportunities for young children to learn about

the world around them and to discover through exciting experiences many of the fundamental mathematics and science relationships necessary for later learning" (p. 168).

When preschool science experiences focus on science processes (such as observation and analysis), children have the opportunity to develop scientific understandings that are far more important than right answers. In this way, classroom dialogues encourage children to think, reflect, and verbalize the tenability of ideas. Pramling and Samuelsson (2001) suggest that, "It is through challenging the child's thinking and encouraging the flow of ideas that the foundations for later scientific understandings can be developed" (p. 147).

Children's awareness of developmental concepts can also be viewed as first steps toward learning a new language—a common language representative of certain knowledge shared by scientists. Gostev and Weiss (2007) noticed that as children increased understanding of the concepts of nature, so too did they begin to express their ideas in more sophisticated, scientific ways. "The children started to use resources around them without being reminded. Most significantly, the children developed the necessary language skills to communicate their ideas and their way of reasoning about the natural world around them" (p. 51).

What are appropriate preschool nature experiences?

According to the National Science Standards (NRC, 1996), it is appropriate for young children to investigate earth materials, organisms, and properties of common objects. Although children will develop concepts and vocabulary from such experiences, they should also develop inquiry skills. Inquiry investigations (where children learn what constitutes evidence and to judge the strength of data used to make explanations) will help develop children's ability to ask scientific questions, to investigate aspects of the world around them, to gather observations, and to construct reasonable explanations. Children

Science Attitudes	Preschool Activity
Questioning is very important in science. Questions help lead scientists to answers in the world.	Help students create a "Questions Book" about nature.
Scientists don't always find answers to all of their questions, but they ask lots of questions anyway.	Encourage dialogue that links children's observations to new questions. "So, what are you thinking now?"
Scientists keep data logs to observe change over time.	Help children make science notebooks that are meaningful to them. Younger children can draw pictures to illustrate their observations.
Scientists use special tools to improve observations.	Provide children with rulers to measure the length, height, and depth of objects and materials; thermometers to measure temperature; watches to measure time; and magnifiers to observe objects and organisms.
Scientists develop explanations using observations (evidence) and what they already know about the world (scientific knowledge). Good explanations are based on evidence from investigations.	When children propose an explanation, encourage them to refer to their data to support their explanations. Documenting what they've seen will help children reflect on their experiences and deepen their understanding.
Scientific investigations involve asking and answering a question and comparing the answer with what scientists already know about the world.	Encourage children to check their explanations against scientific knowledge, experiences, and observations of others. Read informational books to help explain experimental results. Checking field guides models how to use books to find things out. Children will also enjoy looking and talking about the pictures with you and you can read or paraphrase certain parts.
Scientists make the results of their investigation public; they describe the investigations in ways that enable others to repeat the investigations.	Find ways to display children's investigations and conclusions for others to review. Encourage continued dialog.

should also begin to use data to formulate explanations.

Direct experience with living things, their life cycles, and their habitats will help children build understanding of biological concepts (NRC, 1996). These concepts can emerge from children's natural sense of wonder about elemental things (such as how plants get food or what certain animals eat). An understanding of the characteristics of organisms—their life cycles and their complex interactions among all components of the natural environment—begins with the basic understanding of how individual organisms maintain and continue life. Children's nature study, beginning with their immediate environment, will provide a concrete foundation for the progressive development of major biological concepts in the later

grades, such as evolution, heredity, the cell, the biosphere, interdependence, the behavior of organisms, and matter and energy in living systems.

Young children's ideas about the characteristics of organisms develop from basic concepts of living and nonliving. Just as young children may well give anthropomorphic explanations, such as attributing human emotions to explain animal behavior, they may associate "life" with all objects that move. This early understanding will later help children understand movement as a defining characteristic of life—and they will soon incorporate other concepts (such as eating, breathing, and reproducing) to define life.

Appropriate underlying biological concepts and principles may include the following:

- Organisms have basic needs.
- Plants and animals have different structures that serve different functions.
- Plants and animals have life cycles.
- Plants and animals closely resemble their parents.
- Many characteristics of plants and animals are inherited from the parents.
- Animals depend on plants.
- Plant and animal behavior patterns are related to their environment.
- Plants and animals cause changes in their environment.

Learning science attitudes

Young children can successfully experience in-depth, scientific inquiry. Developmentally appropriate expectations for discussion, expression, data representation, and reflection can lead to interesting and engaging explorations that help children make meaning and develop theories from their active work. Worth and Grollman (2003) suggest that "even the littlest learners are powerful thinkers and theory makers" (p. 11). Science attitudes, of curiosity and divergent thinking, enable very young students to explore phenomena and materials that draw upon their natural curiosity, captivate, motivate, and prepare them for later learning. Henniger (1987) suggests that play may be viewed as the highest form of research and notes that play serves as a powerful motivator for many children. In these freely chosen activities, the child feels more in control, more able to make decisions about the direction the play will take. Few children will experience failure or embarrassment over incorrect responses in the play setting. And, as Henniger further argues, "[Play] enables children to learn key concepts and develop essential attitudes toward learning. Its value and importance to mathematics and science should not be overlooked" (p. 171).

In conclusion

Certainly, nature studies are appropriate for preschoolers. These lessons can provide an important foundation for children's science learning over a lifetime. Such early learning experiences can help launch science interests for all children—and may even inspire the Jane Goodalls of the next generation! Perhaps the ideas and suggestions provided here will inspire preschool teachers to organize a plethora of preschool activities that encourage children to "think like a scientist" as they explore their natural world. The table on the previous page can be used as a guide to associate important science attitudes with appropriate preschool activities.

Suggested resources and materials

Consider introducing the National Audubon Society's First Field Guides. Book topics include trees, wildflowers, birds, mammals, amphibians, and shells. These guides (useful both as study guides and field guides) are just the right size and format for young naturalists. The text is understandable (such as an explanation of the differences between broadleaf and needle trees), but the color photos alone will guide the learning of non-readers.

Books like *In the Woods: Who's Been Here?* can help to improve children's observation and hypothesis building skills. Pictures and text teach children to look for evidence or clues of animals they may not actually see on a nature walk. The book guides children to note things such as an empty nest or a fallen branch with the bark gnawed off. Each story prompts the question, "Who's been here?" and the answer is revealed when you turn the page.

Order the book *In the Woods: Who's Been Here?* from your local bookstore or an online bookseller.

References

- Carson, R. (1956). *The sense of wonder*. New York: Harper and Row.
- Conzezio, K., & French, L. (2002). Science in the preschool classroom: Capitalizing on children's fascination with the everyday world to foster language and literacy development. *Young Children*, 57(5), 12-18.
- George, L. B. (1995). *In the woods: Who's been there?* New York: Greenwillow Books.
- Gostev, M., & Weiss, F. M. (2007). First-hand nature: A classroom environment that encourages direct observation of nature and helps develop young students' scientific literacy. *Science and Children*, 44 (8), p. 48-51.
- Goodall, J. (1999). *Reason for hope: A spiritual journey*. New York: Warner Books.
- Henniger, M. L. (February, 1987). Learning mathematics and science through play. *Childhood Education*, 6 (3), p. 167-171.

Klein, E. R., Hammich, P. L., Bloom, S., & Ragins, A. (2000). Report of the Office of Educational Research and Improvement. Eric Document: 440756.

National Research Council. (1996). *National science education standards*. Washington, DC: National Academy Press.

National Audubon Society. (1999). *First field guide: Trees*. New York: Scholastic Books.

Pramling, N., & Samuelsson, I. P. (2001). "It is floating 'cause there is a hole!": a young child's experience of natural science. *Early Years: An International Journal of Research and Development*, 21(2), p. 139-149.

Worth, K., & Grollman, S. (2003). *Worms, Shadows, and Whirlpools*. Portsmouth, NH: Heinemann.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

In the following article naturalist and teacher Paul Belz shares some real life experiences of naturalists leading children in nature exploration activities.

Of Spiders, Worms, and Preschoolers: Engaging Children's Sense of Wonder in the Great Outdoors

by Paul Belz

Naturalist Michael Charnofsky opened a compost bin and gently removed a handful of worms. "These little creatures eat dead plants and make soil. We need soil to grow the plants that we eat." He placed worms in curious children's palms.

"They wiggle when they crawl through the mud," Charnofsky said.

"I like to wiggle in mud," a girl laughed.

"Yes, but you don't live there," Charnofsky grinned. "Let's think about your home."

Ecologist Rachel Carson would have loved Charnofsky's work. Her book *The Sense of Wonder* (1956) described her experiences with her young

nephew, Roger. Carson watched while Roger turned over rocks, dug in the soil, and discovered plants and animals. She de-emphasized naming the creatures; she preferred to share her own amazement and to engage his sensory awareness with the complex and constantly changing earth. Carson felt that wonder was the foundation of all knowledge:

"I sincerely believe that for the child, and for the parent seeking to guide him, it is not half so important to know as to feel," she wrote. "If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the senses are the fertile soil where the seeds must grow."

Carson understood that many adults felt uneducated about science. She advised them to share the feeling of wind and rain on their faces and the beauty of sunsets with their children. Urban parents could take their children to a park to watch birds. They could plant seeds in pots and watch the plants grow.

Michael Charnofsky and Linda Yemoto are naturalists who work for the East Bay Regional Parks District, which owns and manages almost 100,000 acres of parklands in California's Alameda and Contra Costa Counties. "Spiders are a great topic for introducing kids to nature," Yemoto said. "They're such fascinating creatures. Children get so involved in searching for them, and so excited when they find them, it tends to overcome any fears they might have."

Yemoto's preschool spider class gathered in Tilden Nature Center near Berkeley, California, on a warm September morning. Children and parents watched Yemoto draw a basic spider. "Spiders have two body parts," she explained. "The head-chest part is called the cephalothorax. That's where all the legs are attached. The second part, the larger one, is the abdomen. How many legs do spiders have?"

"Eight!" the children answered.

"Great!" Yemoto responded. "How many legs do you have?"

"Two!" The kids replied.

"Yes! And how many eyes do you have?"

"Two" the kids replied again.

"Did you know that a spider can have up to eight eyes? Isn't that amazing? I wonder what we would look like if we had eight eyes."

Yemoto showed the children large photos of local spiders and drew pictures of the different webs they might find that day. She followed the pictures with an animated Japanese folktale about a spider and a snake. Parents then helped the children make edible webs from pretzel sticks and melted chocolate chips. "While we're out on our exploration, the chocolate will harden. When we come back, we'll make a spider that can live in your web," Yemoto explained. "Right now, let's go find some real spiders."

Yemoto and student naturalist, Morgan Evans, gave each child a spray bottle as they walked outside to the patio. Children and parents found spider webs on the deck railing and the walls of the building. They showed the children how to spray the webs lightly with water to make them more visible. "Look! We found a pie spider web!" one girl yelled. "Great! Can you see where the spider is hiding?" Yemoto asked.

After looking closely at the structure of the webs they were spraying, the naturalist led the children over to some coyote bushes and distributed some yellow umbrellas and plastic rods. She showed everyone how to place an opened umbrella upside down under the shrubs and gently tap the plants. Spiders and other critters tumbled into the umbrella. Yemoto identified jumping spiders and crab spiders as she put them in bug boxes and passed them around. "Now we'll release them, and we'll go back and see how our homemade webs are doing."

Yemoto and Evans gave each child a small strawberry for a cephalothorax and a larger one for the abdomen. "You can stick them together with a toothpick, add pretzel legs, and put your spider in its web. Remember to attach the legs to the cephalothorax!" Yemoto reminded them.

Yemoto has over 30 years' experience as a naturalist and marvels at the trans-

formation she sees in children as they explore the outdoors:

"Some children, who haven't explored outside very much, are uncomfortable when their preschool brings them here on a field trip. They may be scared of our park, and we do our best to make them feel safe. Once they do feel safe, their natural curiosity kicks in. They're open to discovering the wonders of nature. It makes me the happiest when I hear one of the children say out of the blue, 'This is so much fun!'"

Teachers can help children search for small creatures in their schoolyards. Students can use hand (magnifying) lenses to look at webs and to discover how spiders walk. Preschoolers also love to watch butterflies and ladybugs and to follow ants that cross their yards. Creative teachers love to develop nature-based art, music, and movement activities. Yemoto explains, "You don't have to be a scientist to share your love of nature with children. Just enjoy exploring with the kids and learn along with them."

Charnofsky underscores the importance of outdoor exploration for young children's development saying, "Many children focus on television and cyber culture in their houses. Electronic media can support their knowledge about nature, but adults need to limit the time they spend indoors. Kids need to get outside so they can touch, see, smell, hear, and experience their world."

Dr. Ruth Wilson, who is still active in her retirement years, turned Rachel Carson's theories into curriculum. Her article "Starting Early: Environmental Education During the Early Childhood Years" (1996) observed that young children watched television more often than they explored their schoolyards and neighborhoods. Their parents drove them to destinations more often than they walked, and many child care centers stressed indoor activities. This lack of contact with the outdoors led many children to feel that nature was 'yucky' and fearsome. Wilson encouraged preschool teachers to prioritize outdoor explorations:

- These should be simple and based on familiar surroundings. Children could regularly explore

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses. This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

their child care center's schoolyard.

- Adults should limit the amount of information they provide and concentrate on sharing their own amazement.
- They could also offer stories, art projects, and movement activities that focus the children's attention on their world.

Wilson's advice fits with the East Bay Regional Parks' philosophy:

"Our East Bay Regional Park programs focus more on guided discoveries than on free play, although we strongly support the need for free play. We show children how to experience nature. We also help parents and teachers learn how to support the kids' free explorations in schoolyards and near their homes. Our guided explorations and children's free play actually complement each other."

Charnofsky agrees, "My biggest goal is for these young kids to connect with the natural world around them, especially around their schools and homes," he said. "They explore here and learn skills they can use later." Charnofsky had extensive experience with school-age children before he began his work with East Bay -Regional Parks. He often works with preschoolers at the Crab Cove Visitor Center in Alameda, California.

One warm October morning, his young students and their parents gathered for his program Everything Needs a Home. "What do you have in your houses?" he asked them.

"Food!" "Juice!" "TV!"

"All animals need homes. Only people have TVs, but all animals need food, water, and a safe place. Look!"

Charnofsky opened a curtain to reveal a model of the nearby tidal mudflat. "Can we find our food in the mud like these birds and leopard sharks do? Can we hide from birds and sharks in the mud like clams do?" he asked.

"No!" "Yuck!"

"We're different from these animals, but we all need homes," Charnofsky smiled. "Let's go outside and find some animal homes. Make a noise like your favorite animal and move like it." Charnofsky led the troupe of howling, chirping, and screeching children out a back door to a group of shrubs. "Can you find any birds' nests?" Charnofsky asked the kids.

"I see them!" several students yelled. "There are spider webs, too!"

The menagerie followed Charnofsky to the nearby tidal mudflat where shorebirds searched for food. Charnofsky showed the children how to use their fingers to mimic birds' beaks and to pretend to forage in the mud.

"Yuck!" one boy said.

"You're not a shorebird," Charnofsky chuckled. "This is their home and it's not yucky to them. Wow! Look over there!" The children quietly followed him towards some California ground squirrels. "Let's sneak up on them," Charnofsky whispered. The kids imitated his slow approach. The little rodents noticed them and dashed towards their burrows.

"They're fast, aren't they?" Charnofsky laughed. "Don't put your hands in their burrows. Let them feel safe."

After some more discoveries Charnofsky led the children into the classroom. He played a CD that included "Everything Needs a Home" by the Banana Slug String Band. "Now we'll build some nests," Charnofsky announced. "Make a home to keep your baby birds safe!" He distributed bags, leaves, sticks, and feathers and sang while the children worked.

"These are beautiful nests," Charnofsky said as the children prepared to take them home. "Remember that animals live around you. See if you can find them!"

Creative teachers find endless activities about local animals:

- Children create model insects by decorating sections of egg cartons.

- Preschoolers learn to imitate local birds' songs and to move like squirrels.
- A librarian can share lists of good nature stories and curriculum guides.

Charnofsky suggests:

"Parents and educators can teach using nature themes in even small yards. If you have a tree that grows leaves in spring and loses them in fall, you can study seasons, plant lifecycles, and even decomposition with children. If parents and educators allow children to safely explore and learn about the natural world, they will develop a true appreciation of nature."

Rachel Carson's book concludes with the following words:

"The lasting pleasures of contact with the natural world are not reserved to scientists, but are available to anyone who will place himself under the amazing influence of earth, sea and sky, and their amazing life."

When Linda Yemoto's students left the classroom to search for webs, Morgan Evans shared a false black widow that she had found earlier. "Take a good look at it," she said while the fascinated students passed its bug box around. "I'll let it go now." The students called "Bye, spider!" as it scurried away. They would remember this day!

References

- Carson, R. (1965). *The sense of wonder*. New York: Harper & Row.
- Wilson, R. (1996). *Starting early: Environmental education during the early childhood years*. ERIC Digest (EDO-SE-96-2).

Resources

East Bay Regional Parks' Program for Kids:
www.ebparks.org/kids

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Catch a Falling Leaf

by Roslyn Duffy

– Situation –

The Pre-K teacher explained that today they were going to do a 'visualization.' They would close their eyes and imagine pictures in their minds. The children settled onto their mats as soft background music began to play.

"Imagine you are lying on a warm beach," their teacher said. "You can feel the soft, sun-warmed sand beneath your hands. Beside you is a large, blue lake. Its water makes a bubbly sound on the rocks and shore grasses rub together with a whispery noise. Then a pair of ducks fly overhead, quacking loudly."

That evening one of the children asked, "Mommy, how big is a beach?"

And another asked, "What is a lake, Daddy?"

A third child wondered how ducks could fly, since the ones at the zoo only floated in their pond.

– Solution –

The confusion of these children may seem extreme, like some futuristic science fiction tale—but how many children experience nature in their daily lives? For many children and adults, daily contact with the natural world is rare. Seventy-year-old Margaret said, "I never had a plastic toy," and yet few parents today are likely to have childhood memories of climbing trees, catching frogs, or stirring up tasty mud pies in the backyard. So how can our children even imagine such things?

The other mother

As parents and caregivers, we feed, clothe, and shelter children, but our mothering (fathering and caregiving) is not enough. Children need to know their other mother—Mother Nature—the source of all that food, clothing, and shelter.

Just as we teach and nurture our children, Mother Nature teaches and nurtures us. But Mother Nature needs our nurturing, too. To raise a generation that will care for nature, both they and we need to become better acquainted with this other mother.

Nature's lessons

Mother Nature's lessons require time spent in her presence, experiences with staying power. Is there a need to de-stress and calm down? Nature teaches tranquility with silent valleys, the pulse of ocean waves, or the rumble of a riverbed. Is your child listless or lacking in creativity? Nature restores spirits with the pastels of a sunset (even a remembered one), and can excite imaginations through the vivid reds and yellows in a single flower petal.

Nature also provides inner discipline through the patience required for a seed to germinate and grow. We can find solace for our grief—as we watch and learn from nature's cycle of death and rebirth: as a tree falls to the forest floor to become a nursery log, sheltering tiny new seedlings—someday to become towering forest giants.

Nature can even teach us self-acceptance, as we admire a field of wildflowers, with its intermingled weeds and wilted blooms. When we recognize this blend of beauty and imperfection, we can view our own less-than-perfect bodies, too-wide eyes, or crooked teeth through a more compassionate lens.

Nature R Not Us

There are many reasons that nature is less visible today. As urban areas grow—the earth's life-supporting soil disappears beneath slabs of asphalt. Instead of smooth, slippery mud, squishy sand, or brittle pine needles our feet slap against slabs of concrete. Our food is in boxes and our night sky is lit by street lamps and traffic signals—instead of dotted with stars.

Once we accept that Mother Nature is no longer a 'natural' part of our lives and recognize the valuable lessons we need from her, re-connecting takes on urgency. No matter where we live, we can invite this other mother into our lives.

Conscious nature

Do your children spend their days in a child care center? How has nature been invited to their playground or made part of a nearby park? Planning an environment that invites nature in—instead of paving her out, can provide an ongoing

connection through everyday play. Are there growing plants, exposed earth, and places for rain to flow or puddle? Is there a bird feeder inviting birds to flit outside a classroom window? Do rainbows take precedence over daily routines?

Family time can become excursions with nature, too. Each fall we catch leaves at a nearby park or along tree-lined paths. We dart and zigzag about as leaves flutter, just out of reach. When one of us catches a leaf, we tuck it into a coat pocket and declare that person lucky for the year ahead. But the real luck comes from the joy of being outside and noticing the leaves. Does your family have a special outdoor tradition? Perhaps a bowl of rocks gathered from various hikes sits on a bedroom shelf or a jar of seashells recalls a morning spent at the beach. What fingerprints has nature left in your homes, centers, and hearts?

Food at its source

Food is essential to all life, but where and how does it grow? The simple act of visiting a farm or garden, digging up a fresh beet, or snipping a handful of basil leaves is an act of connection. Watching the miracle of plant growth can even happen on a windowsill by sprouting alfalfa seeds in a jar. When a child twists an apple from its branch and bites into it, she completes an ancient cycle of connection, a connection that will deepen the roots of care for nature.

Early starts

Mother Nature needs our nurturing as much as we need hers. Sue Joerger, a member of Puget Soundkeeper Alliance, a group that monitors the health and safety of Puget Sound in Seattle, Washington in the United States, was asked why she had dedicated her life to preventing water pollution. She told about her mother taking her to tide pools when she was little and the importance of lakes and oceans throughout her life. Whenever they occur, our experiences and the connections we feel with nature form the foundation for how much we care about and how much we will care for the natural world.

Special experiences

Have you ever heard of the 'Bat Lady'? What about 'Dove Man'? Or 'Reptile Man'? These are all names of people who bring animals to local child care centers in the Northwest. Each offers a personalized experience of animal life.

'Bat lady', a former biologist, rehabilitates injured bats and tells children about the environmental good they do, as she cautions them not to touch bats found in the wild. She then walks around the room with a tiny brown- or silver-backed bat for them to view up close to see the light shining through the fine skin stretched over its wings.

'Dove Man's' dramatic finale is the release of hundreds of doves (actually homing pigeons). Imagine that visual memory and how it might affect a later attitude towards wildlife. One teacher told of how fascinated the parents at his center were to see a moth emerge from its cocoon as part of a classroom project. Even if we, as adults, lack prior experiences with nature, we can always begin — and what better motivators than the children we love and care for.

Tending to nature

When we give Mother Nature an honored seat at our centers, in our homes, and in our lives — we all benefit. We need to invite her in, make time and space for her, and take care of her. Have you spent time with your other mother this week? This month? Maybe it is time for a family visit.

Resources

Learning with Nature Idea Book: Creating Nurturing Outdoor Spaces for Children is a wonderful how-to text available at the Arbor Day Foundation web site: www.arborday.org

Keeler, R. (2008). *Natural Playscapes*. Redmond, WA: Exchange Press.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Sharing Nature with Children

by Karen Stephens

Butterflies. They gracefully trace blue skies with iridescent wings.

Etched with designs that rival stained-glass art, they're a "symbol of the soul." There's no denying it, butterflies are the prettiest insects around!

The butterfly garden is colorful and fragrant. It will intrigue kids' curious minds and soften their hearts toward nature. With you as guide, they'll learn to care for and protect earth's creatures. And butterflies need it. By destroying habitat and using pesticides, humans put a stop to the butterfly's dance. Fell Arboretum shows us how we can change our ways, before it's too late.

The butterfly garden didn't happen by chance. It took purposeful planning. Strolling in the garden, you'll see a butterfly haven in action!

This garden gets full sun; the butterflies need it for warmth and food. Colorful flowers with varying blooming time provide butterflies food from spring through fall frost.

You can't get butterflies without caterpillars, so this garden includes "host plants." Butterflies lay eggs on them; when caterpillars hatch, they instinctively gorge on the host plant. (Some butterflies are finicky. The monarch only lays eggs on milkweed plants. Why? Milkweed is all her caterpillars will eat. And you thought YOU had a picky eater!)

Birdbaths and rocks collect rain to become butterfly watering holes. The garden has bushy plants of different heights so butterflies and caterpillars can "hide out" from predators like birds and praying mantis. It's handy shelter in harsh weather, too!

Those are butterfly garden basics. But there's much more to discover. To lure children to a winged sanctuary, following is a "seek and find" challenge.

Items to Seek and Find

■ Birds like to eat butterflies and caterpillars. Find good places for butterflies to hide!

■ Butterflies get thirsty. Where can they find water?

■ Find a butterfly eating. What flower is it? What plant does a caterpillar like?

■ Butterflies come in rainbow colors. Name all the colors you see.

■ Many creatures live in the garden. What insects live with the butterflies? (Spiders are arachnids, so you can't count them!) What birds, mammals, or reptiles live in the garden?

■ Butterflies like flowers of all sizes. Find a tall one, short one, and a teeny-tiny one.

■ Watch a butterfly resting on a rock with wings outstretched. What is it doing?

■ Search out a garden bench. Lay back and watch a butterfly pass by. Describe its flight.

■ These are common butterflies. How many can you spy?—monarch, tiger, swallowtail, black swallowtail, spice-bush swallowtail, cabbage white, red-spotted purple, painted lady, red admiral, comma, question mark, yellow sulphurs, blues, mourning cloak, great spangled fritillary, viceroy.

■ Butterflies love the nectar of these flowers. Circle all you can find: bee balm, black-eyed susan, butterfly bush, butterfly weed, cardinal flower, coreopsis, cosmos, day lily, goldenrod, hollyhock, honeysuckle, lantana, lavender, marigold, milkweed, nicotiana, petunia, phlox, purple coneflower, salvia, sunflower, thistle, trumpet vine, yarrow, and zinnia.

I wish I could be there when the kids jump up and squeal, "Hey, I found it! I found it!" But that's not what's important. What's important is that YOU'LL be there.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 1.4. True/False

- ___ 1. Science is based on evidence.
- ___ 2. Observations, questions, and experiments are tools that scientists use to construct reasonable explanations of the world around them.
- ___ 3. Rachel Carson believed that wonder was the foundation of all knowledge.
- ___ 4. Carson wrote that people's sensory impressions are the soil in which knowledge and wisdom grow.
- ___ 5. The scientific understandings that children develop from experiencing science processes such as observation and analysis are far more important to their learning process than right answers.
- ___ 6. Play motivates children to explore, experiment, think, and reflect.
- ___ 7. In play settings, children typically accept their own incorrect responses without experiencing feelings of failure or embarrassment.
- ___ 8. Encouraging children to refer to data they have collected to support their proposed explanations helps them learn that scientific explanations are based on evidence from investigations.
- ___ 9. Checking information in field guides models how to use books to find things out.
- ___ 10. Documenting what they've observed helps children think about their experiences and deepen their understanding.
- ___ 11. Displaying children's investigations helps them understand that scientists make the results of their investigations public so that others can repeat their investigations.
- ___ 12. Naturalist Linda Yemoto writes that children with little or no experience exploring outdoors may be scared of the outdoors.

- ___ 13. Yemoto writes that most children who are initially frightened of the outdoors are never able to overcome this fear.
- ___ 14. Yemoto writes that adults should know a lot about nature before they engage in outdoor exploration activities with children.
- ___ 15. Dr. Ruth Wilson recommends that adults should concentrate on teaching children facts about nature.

(1. T, 2. T, 3. T, 4. T, 5. T, 6. T, 7. T,
8. T, 9. T, 10. T, 11. T,
12. T, 13. F, 14. F, 15. F)

* * *

Correct Statements for False Self-Check Items

Items 13, 14, and 15 in Self Check 1.4 are false. Please review the following correct statements.

- 13.** Yemoto writes that when children learn to feel safe outdoors, their natural curiosity is stimulated and they usually enjoy discovering the wonders of nature.
- 14.** Yemoto states that it is not necessary for adults to have extensive knowledge of science or nature in order to develop nature-based activities for children. She encourages adults to "just enjoy exploring with the kids and learn along with them."
- 15.** Dr. Wilson encourages adults to limit the amount of information they provide to children and instead concentrate on sharing their own amazement as they explore nature with children.

Early Foundations: Music and Movement in the Outdoor Classroom

by Pamela VanGilder,
Anne Wike, and
Sean Murphy

In one corner of the Music and Movement Area of a well-equipped outdoor classroom, Imani improvises a tune on a natural wood marimba. "Listen," she calls to a friend. "Come hear my song!"

In another corner, Cody and Bobby jump and twist on a low wooden stage, enjoying the sounds that their shoes make when they connect with the hard wood. "It sounds like thunder," Cody says. "Let's call this our Thunder Dance."

Under a nearby tree, Shana and José wave colorful scarves, mimicking the movements of the tree's leaves as they sway in the wind.

Experiences like these are what make outdoor classrooms a natural way for children to develop foundational movement and music skills that will aid them in all areas of development. Because an outdoor classroom can usually offer more space for large-motor movements than an indoor classroom, children are able to freely experiment with multiple locomotor and non-locomotor activities. And, because sounds are absorbed in the outdoors in a way that's impossible inside, children can create their own music without disturbing other children.

A place for self-expression

Perhaps one of the most positive benefits of an outdoor music and movement area for children is that it provides a place for improvisation. Many parents and educators of young children feel it is very important that their toddler or preschooler has early exposure to dance and music through formal lessons. While many young children respond positively to a well-designed music/dance program, it is just as important that these young children experiment with movement and music making of their own choosing. Chil-

dren gain intrinsic confidence, true joy, and valuable skills through self-discovery.

Providing a designated space for improvisation allows children to apply learned skills in a new way, thus giving rise to their creative spark. The outdoors in particular provides a plethora of input to be interpreted by the young improviser. The flight of a bumblebee, the calls of birds, trees swaying gently in a breeze are all examples of input that may be interpreted through movement and music!

Professionalism of the arts in today's society has created a hands-off approach to music and movement. Children and adults are afraid to have fun making music and dancing freely. As an informal performance venue, outdoor music and movement areas encourage active participation by children and adults alike and promote a low stress environment for experimentation.

A place for developing musical understandings

The outdoors provides a natural place for experimenting with music. Looking at traditional music and dance from cultures around the world, one of the most common observations that can be made is that music and dance takes place outside. The Gamelan Gong of Bali, Samba of Brazil, and Native American Powwows are just a few examples of music and movement groups that perform in the outdoors.

One of the more obvious reasons for these outdoor ensembles is the noise factor. Obviously, teaching 20 children the Samba (using shakers, drums, bells, and whistles) in an indoor classroom is less than ideal. In an outdoor classroom, 20 young sambistas can play without disturbing others. Organized musical activities like this foster cooperation, listening skills, and early math concepts such as pattern and repetition.

Outdoor spaces are ideal places for musical improvisation because sound is released into the air instead of bounced around a classroom. A group of children can develop a tune together on the marimba, play the bongos, and quietly manipulate a rainstick all at the same

time and without disturbing one another. In the outdoors, the children can experiment as individuals or join together as they choose. Fine motor skills and auditory sensory stimulation of using outdoor musical instruments can occur naturally.

Sean's story: As an instrument maker, musician, and teaching artist, I know from personal experience that an easily played and good sounding musical instrument will be used by children (and adults). Instruments should be made of quality materials designed for the outdoors using natural materials wherever possible. For example, I designed and built a huge marimba in collaboration with the staff at Arbor Day Farm in Nebraska City, Nebraska for their Nature Explore Classroom. The 25 foot marimba is made primarily of the nearly indestructible Brazilian hardwood ipe. The sound is resonant and beautiful and we have seen hundreds of children playing the instrument since it was installed over two years ago. [The Nature Explore Classroom is described in James Wike's article "Why Outdoor Spaces for Children Matter So Much" which you will read in Lesson 2.]

A place for developing body competence

Anne's story: "Go outside and play!" How many of us have been told this and have said this to our own children or students? Some of my earliest memories are being outside by myself or with others exploring the environment by running, wandering, climbing, and observing nature firsthand. As a landscape architect, dancer, teaching artist, and mother, I have the highest regard for exploration of the world through the body. I know these early explorations of movement in the outdoors are the underpinnings of my professional pursuits.

Learning takes place through the senses and what better place to stimulate the senses than the rich environment of the outdoors? It is natural for children to

experiment with a variety of movement while interacting with nature and with others. Imagine several young children running, galloping, and spinning in a large open space. Large movements such as these stimulate the vestibular and proprioceptive systems, helping children gain a sense of gravity and balance as they tumble, slither, and roll in the soft grass. They jump, bounce, and skip forwards, backwards, and sideways on a large wooden platform, laughing and moving between one another while negotiating where their bodies are in space and in relationship to one another. These children are learning what their bodies can do; demonstrating their feelings and ideas through body language; while also maintaining their physical health.

Children will naturally gravitate to what interests them and most often to what they need. We as adults must become aware and honor these needs.

A positive place for all learners

Movement, music, and sensory stimulation are vital in the brain development of all children, but in children with special needs they can open the door to learning and help the brain create important neurological connections that may have been missed during early development. Through our senses we take in information, interpret it, organize it, and respond to our environment. In children with special needs this organization of sensory input is out of sync, causing a variety of different challenges that can involve motor planning, coordination, balance, speech, vision, fear, anxiety, repetitive actions, over-activity, under-activity, and other behaviors.

Pam's story: As a movement specialist in a school for children with disabilities and a mother of a child with Down Syndrome, I have learned that careful observation of a child, his response to his surroundings, and his movement patterns can provide important clues to a child's sensory integration capabilities. When given the opportunity to explore and play in an outdoor classroom, how does the child re-

spond? Does she prefer large, gross motor movements that include spinning, swinging, and running in curved pathways? Or does the child prefer to sit in a quiet, calm area? Is there a repetitive pattern to the child's movement choices? Is one side of the body more dominant than the other? If the child gallops, does he gallop with the same side leading each time? When interacting with the child, are you able to help the child gallop with the other side leading? Does the child swing her arms in opposition as she walks or runs? Does the child tend to bump into things or into other children? Does the child look out into the environment or is the focus close and within a small area? Does the child want to touch everything or perhaps put things in her mouth? Or does the child shy away from touching things with different textures?

As I observe, I make note of a child's preferences and patterns and create movement experiences that will facilitate sensory integration. When introducing a new concept to a child with special needs, I often notice that they observe others several times before deciding to participate. Never underestimate the learning that takes place while a child is observing. Children seek patterns and organization as they try to make sense of the world. Anticipation and knowing what to expect will offer security and develop self-confidence in the child who is allowed to step forward when he is ready. All children, regardless of ability or disability learn to interpret the world as they experience it, and with our guidance they can learn to respond and interact with others and with their environment, especially the natural environment.

Ideas for outdoor music and movement activities

■ Experiment with non-locomotor movement

Make a tree dance. Have children find personal space in which to observe trees. Have them make the basic shapes of the tree trunk, its branches, its

leaves. Encourage making shapes with different body parts, with the whole body, and change levels. Children may interpret slow and fast tree growth, old and young trees. Find other examples in nature that could be represented with these words: twist, stretch, bend, rise, fall, shake, wiggle, float, spin, etc.

■ Experiment with locomotor movement

Make animal dances. Invite children to move around the outdoor music and movement area as the animal of their choice. Have them make the basic shape of the animal and use multiple levels. Encourage children to skip, gallop, leap, crawl, slither, creep, and walk in their animal shape. Have children move in different pathways such as zig-zag, curved, and multiple directions.

■ Experiment with patterns in nature and interpret into music

Help students to identify patterns in nature (the number of trees in the classroom, petals on a flower) and interpret these into musical patterns (clap the number of trees, a musical scale representing the flower petals). The patterns can become more complex (a clap could represent a tree and a stomp could represent a shrub) or take into account anomalies (skip a note in the scale for a missing flower petal).

■ Encourage students to add words to individual songs they create

Help students to create songs about their observations of nature (a squirrel collecting acorns). The melody could be something they know or something they make up. Let students perform for one another.

■ Create group dances with music, using nature as the inspiration.

We facilitated a performance with kindergarteners that sequenced a series of dances the children developed over a semester with their teachers. The children explored nature (animal movements and sounds, tree growth, forces of nature such as ice melting into water with fire, seasonal changes) and developed representational movements. The teaching artists and the children pro-

vided music and song. We invite you to use the ideas listed above, to help your students create their own performance. The learning that takes place through these activities includes increased observation skills, new vocabulary, math and science concepts, positive social interactions, and increased self-esteem.

A crucial part of a child's development

"Scientists now believe that to achieve the precision of the mature brain, stimulation in the form of movement and sensory experiences during the early developing years is necessary" (4).

Providing nature-based music and movement experiences on a regular basis can help a child grow stronger in body, mind, and spirit. This kind of natural learning isn't simply "nice" for children to have, but indeed is foundational to their healthy development. And, an added benefit of dancing and making music in the great outdoors is that it's just plain fun for adults and children alike!

References

- (1) Adolphe, B. (1991). *The Mind's Ear: Exercises for improving the musical imagination for performers, listeners and composers*. St. Louis: MMB Music.
- (2) Chugani, H. T. (1998). *A critical period of brain development: Studies of cerebral glucose utilization with PET*. *Preventive Medicine*, 27, 184-188.
- (3) Green Gilbert, A. (1992). *Creative Dance for All Ages* (8th ed.) Reston, VA: National Dance Association.
- (4) Greenough, W. T., & Black, J. E. (1992). Induction of brain structure by experience: Substrates for cognitive development. In M. Gunnar & C. Nelson (Eds.). *Minnesota Symposia on Child Psychology*, 24, *Developmental Behavioral Neuroscience* (p. 155-200).
- (5) Guilmartin, K. (2000). *Early Childhood Music Education in the New Millennium*. *American Music Teacher*, June/July 2000.
- (6) Hannaford, C. (1995). *Smart Moves: Why Learning is Not All in Your Head*. Arlington, VA: Great Oceans Publishers, Inc.
- (7) Nettle, B., Capwell, C., Bohlman, P. V., Wong, I. K. F., Turino, T. (2007). *Excursion*

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses. This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

sions in World Music (5th ed.). Upper Saddle River, NJ: Prentice Hall.

- (8) Rosenow, N., Wike, J. R., Cuppens, V. (2007). *Learning with Nature Idea Book*. Lincoln, NE: The National Arbor Day Foundation.
- (9) *Standards for Dance in Early Childhood*. (2005). National Dance Education Organization.
- (10) Verlee Williams, L. (1983). *Teaching for the Two-Sided Mind*. Englewood Cliffs, NJ: Prentice-Hall.

Lesson 1 Quiz

Please read Lesson 1 two times before attempting its quiz. When you have finished reading this lesson, return to **My Courses** within your Account at www.CareCourses.com and open your course file to access the Online Quiz for this lesson.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 1.5. True/False

- ___ 1. Outdoor classrooms usually offer more space for large-motor movements than indoor classrooms.
- ___ 2. Children's music is less likely to disturb others outdoors because sounds are absorbed in the outdoors in a way that is impossible indoors.
- ___ 3. Outdoor settings encourage spontaneity, creativity, and improvisation in children's music and movement activities.
- ___ 4. Careful observation of a child's preferences and patterns of activity in outdoor activities will help teachers create appropriate movement experiences to facilitate sensory integration for children with special needs.
- ___ 5. Scientists report that movement and sensory experiences during the early years of a child's life are essential to mature brain development.
- ___ 6. Nature-based music and movement experiences can help children grow stronger in body, mind, and spirit.

(1. T, 2. T, 3. T, 4. T, 5. T, 6. T)

Lesson 2

Designing and Using Outdoor Spaces

Learning Objectives

In this lesson you will learn

- the importance of the physical design of outdoor play spaces
- principles for the design of outdoor spaces for children
- the value of using natural materials in outdoor spaces
- the connection between the design of outdoor space and children's experiences and behavior in this space
- safety guidelines for outdoor play spaces
- fun and creative outdoor activities
- ways to evaluate outdoor play areas
- ways to meet the outdoor play needs of school-age children in after-school programs

* * *

In the articles presented in this lesson, a variety of early childhood professionals share their ideas and perspectives on outdoor spaces for children as well as their actual experiences designing and using outdoor classrooms.

As you read these articles, ask yourself the following questions:

- Does your outdoor classroom teach?
- What does your outdoor classroom teach children?
- What would you like to see changed, amended, or redesigned completely?

The articles in this lesson will surely give you numerous exciting ideas for improving the outdoor space at your own early childhood facility—and give you the confidence that you **can** do it!

Why Outdoor Spaces for Children Matter So Much

by James Wike

As a landscape architect, I obviously believe that the way outdoor spaces are designed matters; but recently I've become more of a believer than ever before in the power that well-designed outdoor spaces can help young children grow and learn in positive ways. Through a partnership with the Dimensions Educational Research Foundation and the National Arbor Day Foundation, I was part of a team that designed a demonstration outdoor classroom in Nebraska City, Nebraska, that serves children from ages 2 to 10. The space is a great example of how landscape architects and educators can work together to provide outdoor settings for child care centers and schools that really work well. These are a few of the principles our team followed throughout this process that might have relevance for anyone wanting to create a better outdoor experience for young children.

The physical design of the outdoor classroom is as important as the physical design of the indoor classroom

When I use the term "outdoor classroom," I'm not talking about a plant-filled area that is only used as a place for children to study flora and fauna. My definition of "outdoor classroom" is a place where all kinds of learning can occur as children interact with various elements in the natural world. For example, our demonstration classroom has a music area where children can play a marimba made from ipe wood [see "Early Foundations: Music and Movement in the Outdoor Classroom" in Lesson 1] while their friends dance on a small wooden performance stage.

It has places for children to build with hardwood blocks; to experience hands-on physics principles as they explore a changeable shallow waterway; and a low "tree house" to climb where they can create rooms and other enclosures using pieces of sturdy see-through fabrics. It has large grassy areas where children can run; a "Nature's Art Area" where natural materials can be used to create mosaics and patterns; and a variety of pathways to explore that are surrounded by interesting vegetation. Children can strengthen skills in mathematics, science, language and literacy, visual-spatial thinking, social interaction, and body competence while having lots of fun and developing a profound sense of wonder about the world of nature.

I have observed that teachers and caregivers who spend great amounts of time making sure the indoor classroom is well designed and stocked with a variety of wonderful materials plan for the design of the outdoor space as an afterthought ... if at all. As I have visited many cities, I'm struck by how many outdoor spaces in schools or child care centers are stripped of natural vegetation, contain sterile-looking equipment, and don't offer children the opportunity to learn and grow in just as many ways outdoors as they can indoors. I've become increasingly convinced that if more education and care facilities had thoughtfully designed outdoor spaces, we'd see a decrease in children's behavior problems.

Natural materials are best

You'll notice that I didn't mention plastic structures and rubberized surfacing when I described our demonstration outdoor classroom. That's because our team believes that it's crucial for today's young children to be given daily chances to interact with materials found in nature ... like wood, stone, water, grass, and non-poisonous trees and plants. It really isn't the same experi-

ence for children who go outdoors to a space filled only with hard plastic and concrete. Even if the outdoor space you have for children right now is heavy on non-natural materials, you can look for places to plant a few trees or add planters to introduce some plant life. The addition of some wooden blocks or other naturally occurring materials for children to explore can make a real difference. Being outdoors and really getting to interact with nature are not always the same thing unless we adults make an intentional effort to have natural materials in our outdoor classrooms.

The design of the outdoor space should "teach" children how to use it

Since our demonstration outdoor classroom is visited by school groups and early education programs throughout a large region, we get to see how well the design of the space helps children know what to do there. It's fun to watch a kindergarten class arrive at the "gathering space" at the entrance of our classroom, survey the various areas in the space, then naturally spread out to explore. Typically within a matter of minutes, children are all happily engaged in productive activities. Teachers often marvel at how few behavior problems occur as children work. Our space is divided into areas, each of which is arranged so that it supports a different kind of activity. Much field testing helped us determine what areas to include and how to arrange areas in proximity to each other. The important point is that we separate active and quiet play from each other and use signage and other visual cues to help children intuitively know how to use each space productively.

Why landscape architects say "form matters"

Every outdoor classroom will be physically different because each one should reflect its location, climate, and overall mission. So what makes one more successful than another? When I undertook the task of assisting with the Nebraska City project, I listened carefully to all the exciting things the administrators and staff were saying about how

View photos of Nature Explore classrooms in a variety of cities at www.ArborDay.org/explore/classroom/viewcertified.cfm

their young children were learning. I relied heavily on all their research and the principles upon which they were based. It was a considerable challenge to incorporate those principles, providing adequate separation between activities while molding it all into an exciting place to be.

The largest contribution a landscape architect can make is transforming a space into a place. Think of the last several different coffee shops, public buildings, or residential living rooms you have visited. Each type of space may be very similar in size and function. One will invariably catch your attention more than the others. More than likely it has to do with how the space was arranged, how it was lit, and how skillfully materials were used. How that space was manipulated by a skilled individual transformed it from being a mere volume into a space that was vibrant and engaging. It was fun to be in. The same happens with exterior classrooms. Just getting all the necessary activities included does not guarantee it will be a successful classroom. The ability a skilled landscape architect has to understand the site, along with the ability to understand basic tenets of visual composition and perception, can make all the difference. Form, indeed, matters.

I want today's child to have the same chances I had

As a landscape architect, I know that I chose the work I do in large part because of the chances I had as a child to explore outdoors. Whether I was working my way through a hemlock grove after a fresh snow or watching my twig "boats" race down a ditch after a hard rain, I was learning about spatial volumes and basic physics. I'm concerned that many young children today just aren't getting to do those kinds of things as much. Research shows a significant decline in the amount of time today's children spend in the out-of-doors.

Sandra Hoffert and John Sandberg (1) cite the following statistics: Between 1981 and 1997, the amount of time U.S. children aged 6 to 8 spent playing outdoors decreased by four hours per week, while the amount of time they spent indoors in school increased by almost 5 hours per week.

I believe that if landscape architects like me and early childhood educators really work together, we can help reverse that trend.

In their book, *The Geography of Childhood*, Gary Paul Nabhan and Stephen Trimble say:

"It is quite possible for today's child to grow up without ever having taken a solitary walk beside a stream, or spent the hours we used to foraging for pine cones, leaves, feathers, and rocks—treasures more precious than store-bought ones. Today it is difficult to tear children away from the virtual world of the mall to introduce them to the real one."

Children benefit in so many ways from increased contact with the natural world. Let's give them the gift of well-designed outdoor spaces that help them discover the true treasures of our world.

References

- (1) Hoffert, S., & Sandberg, J. (2000). "Changes in American children's time, 1981-1997." Center for the Ethnography of Everyday Life. Accessed June 1, 2004 from ceel.psc.isr.umich.edu/pubs/.
- (2) Moore, R., & Wong, H. (1997). *Natural Learning: Rediscovering Nature's Way of Teaching*. Berkeley, CA: MIG Communications.
- (3) Nabhan, G., & Trimble, S. (1994). *The Geography of Childhood: Why Children Need Wild Places*. Boston: Beacon Press.
- (4) www.ArborDay.org
- (5) www.DimensionsFoundation.org

Self Check 2.1. True/False

- ___ 1. Landscape architect James Wike writes that an "outdoor classroom" should be a place in which children can experience all kinds of learning as they interact with various elements in the natural world.
- ___ 2. Wike reports that children have very few behavior problems when working in well-designed outdoor learning environments.
- ___ 3. Wike recommends using brightly colored plastic outdoor equipment in outdoor spaces for children.
- ___ 4. Including visual cues in the outdoor classroom design helps children know what to do in each area.
- ___ 5. Wike recommends that all outdoor classrooms follow the same physical design used in the demonstration outdoor classroom in Nebraska City.
- ___ 6. Wike reports that he began learning basic concepts of physics while exploring the outdoors in his childhood.

(1. T, 2. T, 3. F, 4. T, 5. F, 6. T)

* * *

Correct Statements for False Self-Check Items

Items 3 and 5 in Self Check 2.1 are false. Please review the following correct statements.

- 3. Wike emphasizes the importance of giving children daily chances to interact with materials found in nature and recommends using natural materials as much as possible.
- 5. Wike notes that each outdoor classroom should reflect its own location, climate, and overall mission and thus each will be physically different.

The Outdoor Classroom: "No Child Left Inside"

by Eric Nelson

"I only went out for a walk and finally concluded to stay out till sundown, for going out, I found, was really going in." These words were written nearly 150 years ago by the great American conservationist, John Muir, credited with inspiring the creation of our system of national parks. Muir understood the profound impact being outdoors has on human development. Contrast his words with those of a 4th grader in 2005, "I like to play indoors better 'cause that's where all the electrical outlets are." Those words, one example of a number of disturbing trends, reveal an immense, largely unrecognized challenge facing early care and education.

The consequences of a childhood lost

Childhood today is a dramatically changed landscape, not just from John Muir's day, but from 50, 30, or even 10 years ago. It is not easy to understand just how much conditions have changed without gathering together the individual threads of change and seeing how they operate as a whole to conspire to keep children indoors. In addition to obsession with electronic activity, consider the current push-down of academics into the preschool years, elimination of recess and physical education, an increasing generalized fear of nature and being outdoors, as well as the dramatic reduction of parks and wild areas accessible to children. As Richard Louv so brilliantly details in his seminal work, *Last Child in the Woods: Saving Our Children From Nature Deficit Disorder*, this generation of children is in danger of being completely detached from nature and missing the value of experiences found in being outdoors.

These trends become more ominous when joined with current health data. A recent report by the California Center for Public Health Advocacy indicated that 28% of the state's children were

overweight and that 1/3 of the children born in the year 2000 can expect to develop diabetes; nationally, eight million children are on some type of drug to modify behavior. Getting children outdoors and active is literally a matter of life and death. It is also, not incidentally, a matter of sound education and sound social policy. In this context, programs of early care and education are uniquely positioned to address these disturbing developments; but not without some work.

The difference ECE outdoor programs can make ... and the challenge

The quality of our involvement with the outdoors is established in the early years; this includes our attitude toward being outdoors, our pattern of physical activity, and our interest in understanding the world outside. Programs of early care and education are mandated to have an outdoor environment and outdoor activity. They are uniquely positioned to benefit millions of young children and to counteract many of the negative trends that currently assault childhood. They are also well-placed to educate parents and raise the visibility of these dangerous trends to the entire community. With this opportunity comes a challenge, however—most programs are not prepared for the task at hand. We must reframe our curricular thinking and refocus implementation of our programs in order to increase the quantity, quality, and benefit of children's outdoor experience.

For many programs, compared with the indoors, the design and use of the legally required outdoor space is an afterthought; little is provided in terms of design of program and physical environment, not to mention allocation of funding. It doesn't have to be that way. The outdoor environment and program, along with the philosophy that guides it, can be the centerpiece of quality early care and education. A simple way to make it so is to think of it as "the outdoor classroom." The concept is simple: "Everything you do inside, you can do outside." Being outdoors is not "recess," it is an essential learning experience—and critical to child health and

development of the whole child. While the concept is simple, manifesting it is a process requiring clear intention, problem solving, and action.

Creating the optimum outdoor classroom

Since virtually every ECE program has an outdoor environment and activities, initially it may not be evident what, if anything, needs to change. Evaluation of both the outdoor environment and the outdoor program is an essential first step in creating the optimum outdoor classroom. Looking at NAEYC guidelines or ECERS can be a place to start. A recently developed evaluation tool, POEMS (Kaplan Early Learning Company), provides a much more comprehensive and focused method of evaluation. Whether or not a specific evaluation tool is used, the following areas need to be evaluated:

- amount of time children spend outdoors
- frequency with which children are outdoors
- types of activities in which children are engaged and the frequency and duration with which they engage in them
- quality of children's outdoor play
- attitudes of staff toward the outdoor program and being outdoors
- behavior of the staff outdoors
- quality of the outdoor environment.

The process of evaluation should be conducted by each staff person individually so that honest perceptions are shared. They then can be discussed in a group so that the entire staff can "get on the same page" regarding their perceptions of the program. Perceptions often vary, so making certain there is a safe space for conversation is vital.

With an agreed upon assessment of current conditions, staff can take the next step of collectively developing a vision of how they would like their outdoor classroom to look, feel, and operate. This visioning process is sometimes called creating an "ideal scene." The

ideal scene should include desired developmental outcomes, child behavior, teacher behavior, design of the environment, and implementation of activities. It generally takes 2- to 4-hour-long staff meetings to develop an ideal scene. Throughout this period, centers frequently make many small changes that are easy, inexpensive, and uncontroversial. For the remaining changes, planning and implementation of plans is required. Like producing the ideal scene, establishing the overall action plan must be a full staff activity. The keys to effective action planning are:

- clear definition of the task and the objective
- assignment of responsibility to a particular individual to monitor the execution of the task and make sure it is being carried out
- periodic review of the task implementation with adjustment in the implementation process as required
- acknowledgment of success when the task is completed.

The outdoor classroom in action

Every outdoor classroom will look different, but there are features that should be similar to all. Every classroom should have the following characteristics:

- Children spend substantial periods of time outside, and it is easy and safe for them to get there; they are free to move easily between the indoors and outdoors for significant periods of time during the day.
- There is a full range of activities for children outdoors, including many activities that are traditionally thought of as "indoor activities," even when there isn't a fully developed yard.
- While outside, children frequently are engaged in learning that they have initiated and that the teachers actively support; children develop their activities while the teachers supervise and facilitate as necessary; the length or frequency of children's engagement with an activity is sufficient for children to discover "problems" in the activity that

they must solve in order to master skills required for the activity; teachers are sufficiently engaged with children's activities that they are always available to answer questions and otherwise support children being successful with the activity.

These characteristics flow from the following tenets:

- "Learning occurs everywhere and all the time."
- "Learning is much more than 'reading, writing and arithmetic'."
- "Frequent opportunities and lots of time are required for learning to occur."
- "Individual children's needs are best met when there is flexibility in being in or out of doors."

Effective outdoor classrooms require adequate outdoor environments. Some recommendations:

- **Play yards should always be adjacent to the classrooms of the children they are serving.** Open indoor-outdoor flow should be encouraged whenever possible.
- **Play yards should always be large enough to contain the full variety of activities children require for healthy development outdoors.** This is a frequently ignored guideline, as yard sizes are usually a minimum based on the number of children multiplied times so many square feet per child. In small preschool programs this creates yards too small to accommodate the full range of activities children need. Consider these minimum playground sizes, irrespective of how small the classroom group size: 1–12 months: 700 sf; 12–24 months: 2,500 sf; preschool: 5,000 sf.
- **Open space (usually best in the center of the yard) should be large enough for children to run freely, with activity areas placed around the perimeter.** Lack of open running space severely limits the amount of strenuous activity needed for good health.
- **Yard layouts need to separate those different types of children's activities that might conflict with one another where they overlap in order**

to avoid safety risks and supervision challenges. For example, a common problem is children playing with the same sand that is serving as safety fall zone material.

■ **Healthy outdoor development can only happen when there is the full range of activities that is required for development of the whole child.** This means that "indoor" activities need to be outdoors as well. It also means opportunities for physical activity need to be wide-ranging, assisting in all types of physical development.

■ **A wide variety of materials/equipment is needed, with emphasis on items the children can manipulate.** Sand toys, large balls, outdoor blocks, milk crates, trikes, and the like provide children with more developmental activities than fixed equipment, while encouraging physically active play.

■ **There must be adequate outdoor storage to support the full variety of activities children require for healthy development outdoors.** Lack of storage is the single most common playground design weakness discouraging teachers from being outside.

■ **Play yards should provide challenge sufficient to support development of the whole child; challenge is defined as "reasonable risk."** Without a degree of risk, there is no development, no mastery of new skills.

■ **Nature and a natural environment should be the dominant environment outdoors.** For many city children, time on the playground in their child care center is their best and often only opportunity to connect with nature, much less be outdoors.

The power of the Outdoor Classroom is grounded concurrently in its simplicity and complexity. When children lead the learning process and have the widest possible selection of activities in which to participate, learning through play creates an environment that is at once energetic, engaging, and harmonious. Conflict recedes and the joy and power of learning through doing becomes entrenched. As never before, we need the unique attributes of this curricular approach that can comprehensively address the wide range of child-

hood challenges our children face in physical health, academic learning, social understanding, psychological well-being, and connection with nature.

References

- California Center for Public Health Advocacy. (2005). "The Growing Epidemic: Child Overweight Rates on the Rise in California Assembly Districts." Davis, CA: California Center for Public Health Advocacy.
- Jones, E., & Cooper, R. (2006) *Playing to Get Smart*. New York: Teachers College Press.
- Kuo, F., & Taylor, A. (September, 2004). "A Potential Natural Treatment for Attention-Deficit/Hyperactivity Disorder: Evidence From a National Study." *American Journal of Public Health*, 94, 9.
- Louv, R. (2005). *Last Child In The Woods: Saving Our Children From Nature Deficit Disorder*. Chapel Hill, NC: Algonquin Books of Chapel Hill.
- Nelson, E., et. al. (2006). *The Outdoor Classroom Program Development and Staff Training Guide*, 2006 Edition. La Canada, CA: The Child Educational Center.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 2.2. True/False

- ___ 1. An individual's attitude toward and interest in being outdoors is established in early childhood.
- ___ 2. Eric Nelson writes that most early childhood programs give as much attention to the design and use of outdoor space as they do to indoor space.
- ___ 3. Eric Nelson suggests that being outdoors should be considered "recess."
- ___ 4. In creating an "ideal scene" for an outdoor classroom, planners should consider both child and teacher behavior in the outdoor space.
- ___ 5. Children should have safe and easy access to the outdoor classroom so they can easily move between the indoors and outdoors for significant periods of time during the day.

- ___ 6. The outdoor classroom should include as wide a range of activities as possible—even those that are traditionally considered "indoor" activities.
- ___ 7. Activities in the outdoor classroom should be limited to those that require only the minimum number of staff to ensure children's physical safety.
- ___ 8. Play yards should be large enough to permit a full range of activities for children's healthy development, regardless of the classroom group size.
- ___ 9. Play yard layout must separate activities that might conflict with each other.
- ___ 10. Play yard equipment should emphasize materials that children can manipulate.
- ___ 11. Lack of storage is the most common play yard design fault.
- ___ 12. New skills cannot be mastered without a degree of risk.
- ___ 13. Nature and a natural environment should be the predominant environment outdoors.

(1. T, 2. F, 3. F, 4. T, 5. T, 6. T, 7. F, 8. T, 9. T, 10. T, 11. T, 12. T, 13. T)

Correct Statements for False Self-Check Items

Items 2, 3, and 7 in Self Check 2.2 are false. Please review the following correct statements.

2. Eric Nelson points out that for most programs, the design and use of outdoor space is an afterthought.
3. Being outdoors is an essential learning experience that is critical to children's health and development and should not be considered simply "recess" or a break from more important aspects of the child's day.
7. The outdoor classroom should support a full range of activities and include enough teachers so they are always available to answer questions and be engaged with children's activities—as well as ensure children's physical safety.

The Adventure Outside Your Classroom Door

by Sally Hurwitz

Preschool children love the out-of-doors. For many children in preschools and child care centers, the time for outdoors is their favorite time of the day. But for directors and teachers, the playground can be an area of constant concern.

Administrators are looking long and hard at their current playgrounds and finding them unacceptable from a developmental and safety standpoint. An increase nationally in the number of injuries and subsequent lawsuits has forced those involved with young children to pay special attention to the equipment and maintenance of their playgrounds.

Teachers feel the need to make the playground more of an extension of the classroom in terms of learning. And parents are demanding more than an exercise-only playground for their children. So, how can we make the most of this expensive and expansive area?

Don't Forget the Power of Play

Playgrounds for the most part have taken a back seat to research in the classroom. The NAEYC describes play as the key component of a developmentally appropriate program but offers few guidelines for the out-of-doors (1). Research supports the value of play regardless of whether you're inside or outside. Play promotes problem solving, language development, creativity, social skills, discovery, and motor skills (3). Teachers and administrators understand the potential play has for the developing child, and they support it with materials, time, and space to play daily. This awareness of the power of play is a big part of the inspiration for a reassessment of our outdoor environment.

Types of Playgrounds

Within the last few years, early childhood educators have been reexamining their traditional play yards and are seeking exciting equipment and ap-

proaches to outdoor play. These new nontraditional playgrounds fall into three basic categories: **designer playgrounds**, **adventure playgrounds**, and **creative playgrounds**.

■ **Designer playgrounds** are planned by professional architects. They are visually beautiful with lush landscaping and a variety of commercial and natural material structures.

■ **Adventure playgrounds** are child centered, with an abundance of raw materials available, and a play leader on hand to lend assistance if needed. There is building, digging, gardening, animal care, outdoor cooking, water play, and play with the basic materials of sand, dirt, and water. Adventure playgrounds were originally designed to give children an opportunity to do what adults do outdoors.

■ **Creative playgrounds** are somewhere between the other two. They are designed using commercial play equipment and natural and found materials such as railroad ties and truck tires.

Which type of playground is the right one for your center?

One Adventure-Type Playground

Ask Ky Murphy, the director of the Summerhill Children's House in Enid, Oklahoma. Ky's playground illustrates the unique approaches to outdoor play being seen across the United States. On any given day, you can find children caring for animals in the small petting zoo. They may care for, feed, and pet goats, chickens, ducks, and even a donkey. Or they may prefer to play kick ball in the open field area. On this adventure-type playground, you will not find a typical multilevel deck and post climbing structure, but rather a castle, a large pirate ship, a fort, and a playhouse with its own carport for fast food pick up in the drive-by window. In addition, there is a large garden area for growing fruits, vegetables, and flowers.

This outdoor space is a good example of meeting the play needs of the children by use of imagination coupled with abundant materials. The playground is a homegrown effort that was designed by Ky and her partner, Nancy

Heim, and built by local contractors. The area for outdoor play is extremely generous (a half acre) but to date, with 110 toddlers through kindergarten age children, they have never had any concerns with safety or liability.

Not All Playgrounds Are Created Equal

There is no doubt that playground design and development has had a recent revival, largely because of the safety and liability issues with older playgrounds. But many see teachers' and administrators' concerns for safety as the force toward sterile landscapes and fixed equipment that has little play value for children. This emphasis has turned some playgrounds from child-centered environments to structured center environments. Dr. Tom Jambor of the University of Alabama, an independent playground designer, feels passionately that as early childhood educators we have reduced playground design to a single play structure that may be beautiful to look at but lacks lasting play value for children. He cites the growing concerns for safety and the strict guidelines from the Consumer Product Safety Commission and the Americans with Disabilities Act for this trend. For him, today's playgrounds are "boring." Summerhill's playground may be the exception to Dr. Jambor's statement, but it is certainly not alone.

What's Ideal?

The first adventure playgrounds were designed shortly after World War II by an architect who became fascinated by the children playing in the vacant lot next to a construction site. Even though there was a playground available, they chose to dig and build with the construction scraps. This basic need children have to create was the inspiration for adventure playgrounds in Europe and later in the United States.

There is not one adventure-type playground design that works for all centers, but there are some key components to bring the spirit of this kind of playground to your site:

■ A wide variety of equipment and materials must be available for children to

choose from. New play structures can be built, torn down, and reconfigured with the materials on hand by the playground participants. These loose materials might include tires; large snap-together plastic blocks; planks to use for ramps, slides, and balancing; carpentry wood and tools; rope; and plastic piping. Also included here would be the natural materials of sand, dirt, and water. The list is endless and gives children opportunities to invent and create.

■ A large storage area is essential to house tools and supplies.

■ A supportive staff is critical to lend a helping hand in moving materials and facilitating play with appropriate questions and dialogue. Staff members are necessary to ensure multiple opportunities for children to be real-life problem solvers.

■ Educated parents and staff must understand the value of play. Young children should have an extended outdoor play period, a minimum of 30 minutes once or twice daily.

Adventure playgrounds are not without their problems. Keeping your playground fully stocked with loose materials is a continuous job, so be prepared to spend time scrounging for new materials the children can use. Because of the nature of the loose materials used, your outdoor environment will not look as attractive as a more conventional playground. This may not be a concern for your center if you have appropriate fencing enclosing your play area. Teachers and aides using this kind of playground take an active role in setting out materials and facilitating play. Therefore, administrators must ensure that their staffs are well prepared to be facilitators and co-players with the children. Liability and safety have been found to be less of a problem on adventure playgrounds as there is a great deal of evidence that this type of play environment is as safe as other types of playgrounds (2; 4).

The Curriculum Outdoors

Teachers, administrators, and parents are realizing that the indoor curriculum can be easily integrated outdoors. The fact that activities are outdoors does not mean that they are any less important

for the children. In fact, outdoor environments can easily complement the developmentally appropriate indoor early childhood program. Teachers must learn to plan the outdoor environment much the way they plan indoors. Learning centers, such as the art center, housekeeping, and the library—along with prop boxes and building blocks—should be regular features outdoors. Most activities planned for indoors can just as easily be moved outdoors.

The ideal playground is developmentally appropriate, safe, and meaningful for children—and allows the curriculum of the classroom to be explored out of doors.

Play has always been a part of the day for our youngest children, but just setting aside time for play each day is only the beginning. Teachers should be watching, asking questions of the children, listening to their understanding, and prodding them to stretch their ideas. The goal is for children to continue to develop their perspective taking, their symbolic thinking, their problem-solving skills, and to learn to think creatively and flexibly during their play. This does not happen independently of an attentive adult. Time for play must be set aside each day, and a stronger connection must be made for outdoor play and the implicit curriculum for children to receive the fullest benefit of this time.

In the last few years, we have seen a remarkable increase in the improvements of playgrounds for young children. Sterile, uninteresting playgrounds are being replaced with thoughtful environments that are functional and exciting for those who play there. We know there is no single ideal playground design, but rather many ways to design a developmentally appropriate outdoor environment for young children.

We want children to be given every opportunity to learn and develop in all aspects of play. When adults provide well-designed adventure-type play environments, children extend their understanding and thinking. They identify problems and challenge themselves to solve them. When centers designate the playground as a play-only area, they devalue its potential for learning. In-

stead, think of the playground and outdoor play as central to extending the learning of the classroom. When adults deny appropriate play experiences to children because of their concerns with the acquisition of academics, keeping children clean, or a less than perfect weather day, they deny them the opportunity to participate in an activity that critically distinguishes children from adults.

References

- (1) Bredekamp, S., & Copple, C. (Eds.) (1997). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* (Revised Edition). Washington, DC: National Association for the Education of Young Children.
- (2) Frost, J. (1992). *Play and playscapes*. Albany, NY: Delmar.
- (3) Johnson, J. E., Christie, J. F., & Yawkey, T. D. (1987). *Play and early childhood development*. Glenview, IL: Scott, Foresman & Company.
- (4) Vance, B. (1982). Adventure playgrounds, the American experience. *Parks and Recreation*, 17(9), 67-70.

Trust, the Earth and Children: Birth to Three

by Mary Helen Young

The thought of playing outside evokes magical memories which include the sights, sounds, scents, textures, and emotions of the moment. My favorite outdoor memories include trees. I got a secure sheltered feeling when under a low canopy of soft green leaves or swishing pine needles. I indulged in the rich fantasy of elves, dwarfs, and fairies as I nestled into the tangled roots of the large trees in the park. Growing up on the coast in southern California I was blessed with abundant natural settings. The Earth and the gifts she offers continue to provide security; I seek trees when my spirit needs to refresh and recreate. These memories inspire me to promote natural outdoor environments for the children I have the honor of serving. I want to inspire an abiding trust of the Earth. My goal is to encourage budding environmentalists. How does one encourage such profound respect for the Earth?

We seek to develop comfort, respect, and trust through the provision of a home-like environment in our centers. This succeeds when we sensitively and authentically include the cultures of all the families we serve. How do we create a home-like outside environment for the children and their families? Start with consistent, well-paid, educated, experienced, respected, and nurtured teachers. Create a strong foundation with quality teaching staff; they will create environments best suited for the group of children they are teaching in that moment.

Next, consider the yards, parks, and outside play area of the children you serve, assuming they have access to such. What non-toxic herbs, spices, vegetables, and flowers are grown by the families you serve? Do the families you serve sit in hammocks, on the stoop, on towels, benches, or other outdoor furniture? Seek to incorporate family culture into the outdoor environment.

Consider the inside spaces that provide comfort and security to children. Trees, bushes, and plants can be used to define spaces and lower the ceiling. Create a quiet area in a circle of trees or bushes. Offer a toileting area under a shady tree with some privacy provided by bushes. Craft a low maze with slow- and low-growing bushes. Encircle a mud hole with water-loving plants, leaving openings for children to merge into and emerge from. This could define a messy/science area where children may explore with water and all of nature's bounty. Add low up-ended logs, containers, and scoops; children will do the rest. Sand play need only be enhanced with the addition of scoops, containers, and sometimes water. There are a variety of ways in which you might construct or plant a definition for this for the sand area.

Logs, stones, and rocks supply a natural variety of gross motor experiences while doubling as seats and visual enrichment. Espalier trees with low branches for children to climb upon, straddle, and incorporate into structures. When you take walks with the children, model your respect for the Earth and the community by eliminating garbage as you walk. In one infant/toddler center, the children begin to call the plastic rings that hold six cans of beverages together "the bird chokes." We regularly picked them up and cut them into pieces with an explanation for our behavior. We took garbage bags and gloves along with us on all of our walks.

Nature is the supreme provider of curriculum. From trees we receive shade, sounds, colors, textures, smells, and edibles. We receive leaves, needles, cones, acorns, nuts, flowers, and bark. For those of us on limited budgets, the free loose parts are a welcome windfall. Trees shelter and nourish birds, squirrels, and insects while at the same time they endow us with free curriculum inspiration. Thoroughly investigate the toxicity, the allergen potential and the pest drawing and repelling qualities of each plant. It is preferable to plant flora indigenous to your locale.

Let me arouse your imagination with the story of a 15-month-old girl I observed investigating nature in the Infant Garden at the Center for Child and Family Studies of UC-Davis. She spends up to a half an hour collecting acorns, transporting them to our bamboo area, and nestling the acorns into the cups provided where the bamboo stalks had been cut down. She struggles and succeeds at digging into the cup with her thumb and forefinger to remove the acorns. In a log, covered with deeply pocked bark, she discovers the acorns that scrub jays had embedded into the gaps. She investigates with her fingers for quite a while then deftly removes one acorn and places it into another gap. She creates her own nesting cups as she investigates the textures, shapes, smells, and sounds of nature. She spends time gathering pine cones, investigating under the pine needles, singing, and talking back to the birds. She pulls, pushes, bends, plucks, mouths, and transports the Horsetail plant growing along the chain fence. When she discovers the pineapple guavas on the guava bushes, she heads there every day. She plucks them from the tree, bends, and picks them up from the grass. She mouths, bites, tastes, spits, pokes into, smashes, smears, and transports them. She relates to this small piece of the Earth in comfort, security, and trust.

References

- Bowlby, J. (1988). *A Secure Base*. England: Routledge.
- Carter, M., & Curtis, D. (1994). *Training Teachers: A Harvest of Theory and Practice*. St. Paul, MN: Redleaf Press.
- Erikson, E. (1963). *Childhood and Society*. New York: Norton & Co.
- Gaedeke, K. J., & Neville, S. J. (1996). "Infant Garden Demonstration Program." Poster presentation at the Eleventh Annual National Training Institute, Center for Clinical Infant Programs, Washington, DC.

Outdoor Magic for Family Child Care Providers

by Hazel A. Osborn

"Let's play outside!"—magical words to any child. Even if you have no yard and use a nearby playground, you can still double your play space by using the outdoors well. Think beyond active play! Almost any indoor activity can also work outdoors.

Play Equipment for Maximum Fun

Have plenty of elbow room outdoors, with permanent structures using less than 10% of your space. Don't overload with too many riding toys or playhouses. Each season, customize the space to the ages and personalities of your children.

A large bin on wheels, or even an old double stroller, can store and transport materials to a yard or playground.

Here's what to include:

- Cell (or remote) phone and emergency numbers
- First aid kit and emergency diapering supplies
- Small pop-up tent with lawn-chair cushions and stuffed animals for shaded cuddling and reading
- A few favorite books (changed periodically)
- Picnic ware for outdoor meals and dramatic play—let the children help you wash them
- Snacks and water
- A few dress-ups and props (changed periodically)
- Art materials like sidewalk chalk, water buckets, and paintbrushes
- Musical instruments (they'll seem so much quieter outdoors!)
- Gardening tools, measuring cups, scoops, magnifiers, sorting cups, butterfly nets, and a scale for exploring nature
- Balls, hoops, jump ropes, a parachute

If you tidy up your outdoor kit every day at nap time, it will always be ready for more fun.

Make It Happen—Every Day

Spend at least an hour in the morning and an hour in the afternoon outside. Time your outings for maximum comfort depending on the weather and season.

Too much sun? Awnings, tents, tarps, shade plants, latticework, trellises, gazebos, porches, and playhouses all can work to control light.

Hard concrete patio? Pad with climbing mats or resurface with interlocking outdoor rubber tiles from a hardware store.

Too hot? Take a tip from Arizona providers and use a fine mist spray to cool down safely. Have plenty of shade. Sprinklers and water pistols are safer and less germ-y than pools. And have plenty of drinking water available. How about installing an outdoor drinking fountain?—great for water play, too!

Too cold? Don't use temperature as an excuse to stay inside. Alaskan children play outdoors until it's -10 F! For children who can crawl or walk, 20 F (including wind chill) is still warm enough to enjoy outdoor play if they are warmly dressed. Babies, bundled warmly and set in a wind-protected, sunny corner of porch or patio will enjoy the outdoors, too. Have a stash of spare outerwear (including boots) neatly stored near the entry area. And invest in plenty of warm, comfortable clothing for yourself so you aren't tempted to cut play time short.

Oddly-shaped play space? Convex mirrors placed strategically let you see all of the property from one position.

No fence? Festival fencing (the orange plastic stuff) is inexpensive and temporary, and will remind children where to play (but is not escape-proof). Storm fencing (vertical wooden slats wired together) is also inexpensive but splintery. Chain-link fence and garden fencing are climbable. Try picket or board-on-board fencing for privacy with peeking views. Don't count on any

fence to contain active children; you must be outside with them.

Scattered toys a headache? A storage shed is perfect for storing riding toys, out-of-season items, and other toys; it doubles as a play space when the toys are in use in the yard. Use a large keg or drum to store balls outdoors; empty and turn on side for hideout fun.

Sea of mud? Large porous mats or planks can keep children from sinking into mud.

Rainy day? A roofed porch, garage with open door, or even a large tent can rescue outdoor play.

Cranky family? Your own family needs the outdoors, too. Make sure to have adult-size picnic space, protect their gardening areas, and keep their recreational equipment convenient, but safe. Make sure your child care children pick up their playthings.

References

- Carter, P. (2001). Caregiver's Corner, "A toddler's outdoor walk." *Young Children*, 56(6):69.
- Hoppert, R. (1985). *Play yards, play things*. Chicago: Contemporary Books.
- Sunset Books (eds.) (1988). *Children's rooms & play yards*. Menlo Park, CA: Lane Publishing Co.
- McGinnis, J. R. (2002). "Enriching the outdoor environment." *Young Children*, 57(3): 28-30.
- Meyer, A. P. (1997). "More Than a Playground—Accessible Outdoor Learning Centers." *Child Care Information Exchange*, 114: 57-60.
- Odoy, H. A. D., & Foster, S. H. (1997). "Creating Play Crates for the Outdoor Classroom." *Young Children*, 52(6): 12-16.
- Shallcross, M. A., & Wilson, R. A. (1999). "Family Child Care Homes Need Health and Safety Training and an Emergency Rescue System." *Young Children*, 54(5): 70-73.
- Wilson, R. A., Kilmer, S. J., & Knauerhase, V. (1997). "Developing an Environmental Outdoor Play Space." *Young Children*, 51(6): 56-61.

Beyond Ramps: Outdoor Environments to Welcome All Children

by Kirsten Haugen

Children typically spend outdoor time unselfconsciously engaged in key developmental tasks. They burn off steam, process new experiences and emotions, and negotiate imaginative worlds with peers and playground stuff. However, many outdoor environments unintentionally exclude children with physical, sensory, developmental, or behavioral challenges. While accessibility standards emphasize safe physical access, it takes a more personal approach to make a space welcoming to all children. Catherine Curry-Williams, co-founder of Shane's Inspiration, remarks, "I believe it is the birthright of every child to simply play in the park. Can a child in a wheelchair actually play? A ramp to where he can play just one thing while kids are jumping for joy somewhere else only brings isolation."

From the Ground Up

Ground surfaces are one of the first things to impact access. Gina Fritz, a preschool teacher and parent who uses a wheelchair says, "If a playground is surrounded by sand, I can't get in there to push my daughter on the swing or get to her on the climber, so even if it's a great park, we just don't go there." A resilient unitary surface may be more costly upfront than loose fill, but it's highly accessible and typically requires less upkeep and expense in the long run.

A paved access path can double as a tricycle circuit and happily lead to your playhouse, sand area, climbing structure, and storage garage. Highly contrasting colors safely mark transitions from pathways and platforms to steps, slides, bridges, or sand. Ramps and elevated play tables allow children to play without leaving their wheelchair or walker. Wagons with seating inserts and tricycles for two become buses, trucks, and taxis, enriching physical and dramatic play for all kids, including those with physical and visual impairments.

Depending on the moods and needs of the children, sandboxes make a versatile base for boisterous, dramatic, social, scientific, or self-soothing play. An accessible sand table can bridge the area between your sandbox and access path. Include sand toys with a variety of shapes and handles. Dig out a supportive seat in the sand for children who have difficulty sitting. Notice how some children love to be partly buried in the sand. The gentle pressure can be particularly calming for some children with autism.

Sound elements like bells, chimes, and waterfalls delight children with or without visual impairments. And whether or not children have hearing difficulties, they'll excitedly explore the range of vibrations and rhythms you can make on buckets, railings, wood, and other *found* instruments.

Label your playground with words and icons for playground structures, activities, rules, and moods. Signs support communication and early literacy, especially for those who are deaf or learning a new language. Use textures (such as grooves made with a router) and contrasting colors, so children with visual challenges can use them to navigate and make confident choices. You'll find children of all abilities tracing their fingers through the words and shapes, often naming them as they go.

Painting outdoors can be both messy and inspiring. Clear lexan panels or painting easels make it easy. Some children enjoy painting what they see on the other side! Photograph or make prints of any masterpieces, and hose it all down when you're done.

The playground may be a saving grace for active children who need to blow off steam. Children with social difficulties, however, often face their greatest challenges during less structured play. Carol Gray offers specific strategies for such children in her short book, *Taming the Recess Jungle*. In addition, giving some children special outdoor time to roam, regroup, or retreat can help them attempt more social play during regular outdoor (and indoor) time.

When you consider ways to welcome children with special needs, you'll build in elements to benefit all children.

"We're going to have to build a ramp for Thomas to get down here to play. It'll have to be big and metal and strong, and we can use it for match box cars, too!"—a kindergarten

Four-year-old Sam calls to his teacher from the climbing structure, "Hey, Gina! Come onto my space ship! It has a RAMP!" His teacher wheels her chair over and joins him on his travels "to infinity and beyond!"

You'll also expand recruiting for both staff and volunteers. A welcoming outdoor space enables caregivers, grandparents, and others with special needs to safely supervise and engage children in play by providing shade, seating, accessible storage for tricycles and other stuff, and ways to easily watch and reach children at play.

Plan for the Future

Plan for your ideal environment now whether or not you have the funding you think you'll need to build it. It's easier to lay out a thoughtful design now and add features as you go than to move pathways, landscaping, and structures later. Jean Schappet, of Boundless Playgrounds, suggests that whether your budget is large or small, "Think with the end in mind ... 'How can we provide the very most play options within our space and budget?'" In smaller areas, this may mean foregoing space-hungry swings for a sandbox, playhouse, and climber where several children can play together.

While a list of desirable equipment and critical regulations may seem like a logical starting point, Schappet suggests that we instead begin the way children typically approach outdoor play, with questions like "What can I do here?" Schappet points out we can also gain insight from our own favorite play memories.

Inviting key players in your community to share in your dream from the outset may help that dream happen sooner rather than later. Service club members may see an accessible play space as a worthy service project and fundraiser. Firefighters or police will offer practi-

cal input on first aid and rescue. Librarians, therapists, and others may offer creative ways to get kids playing. Above all, solicit the ideas of children through discussions and drawings.

Schappet recommends, "Go visit other playgrounds and talk to the adults who supervise; ask what works and what doesn't. Observing the kids will also tell you a huge amount. Make this a thoughtful process." Once you've gathered ideas, work out a bubble map using large circles to work out where to place different play zones. This will help prioritize which elements you'll include now and in the future.

Beyond the Playground

Outdoor experiences don't end at the playground. When you go on nature walks or community outings, plan ahead to creatively include children with disabilities. Call to inquire about accessibility of buses, paths, parks, and buildings. Offer specific feedback in writing if the environment or service is not truly accessible. Preview the experience with children, using maps, photos, and stories to highlight what the children can expect and what you expect of them. You may find a three-wheeled jogger or all-terrain wagon equipped with a strap-in seat will work better for some children than a conventional wheelchair or walker (check first with the child's parents and therapist).

A Ripple Effect ...

A welcoming environment goes beyond providing physical access and including children with disabilities. It also requires building awareness among all children and caregivers. Children deserve an opportunity to thoughtfully discuss why a peer cannot speak, why their classmate with autism gets longer turns on the swing, or why the child with Down Syndrome "is mean because he sticks his tongue out at everyone!" These sometimes-difficult questions offer unique opportunities to raise awareness and empathy and to problem solve with children. Children and families who grow up in your welcoming environment will take these ideas and expectations with them when they leave your program, creating a ripple effect across your community and beyond.

References

- Boundless Playgrounds. 45 Wintonbury Ave., 2nd Floor, Bloomfield, CT 06002, (860) 243-8315 (www.boundlessplaygrounds.org). Promotes the development of playgrounds where children of all abilities can play together, through public awareness campaigns, direct services, and more.
- Burkhour, C. (2002). *Playgrounds for ALL Kids!* Chicago: NCPAD (www.ncaonline.org/research/play4all.htm). Practical considerations for planning an accessible playground.
- Gould, P., & Sullivan, J. (1999). *The Inclusive Early Childhood Classroom: Easy ways to adapt learning centers for all children*. Beltsville, MD: Gryphon House.
- Gray, C. (1994). *Taming the Recess Jungle*. Arlington, TX: Future Horizons. Practical ways to "socially simplify" recess for children with autism and similar difficulties (see also: www.thegraycenter.org).
- Haugen, K., & Wershing, A. (2001). *We Can Play*. San Rafael, CA: Alliance for Technology Access (free to browse or download at www.ataccess.org/resources/wcp/ndefault.html). Accessible play ideas, including sand play, water play, playgrounds, picnics, riding toys and more, in English and Spanish.
- National Center on Accessibility (2002). *Access to Playgrounds*. Bloomington, IN: NCA, (812) 856-4422 (www.ncaonline.org/playground/playgrnd.htm). Federal statements (including ADA), articles, and resources for accessible playgrounds.
- Shane's Inspiration. 4804 Laurel Canyon Blvd., #542, Valley Village, CA 91607, (www.shanesinspiration.org), (818) 752-5676. Promotes the creation and use of universally accessible playgrounds through community education, technical assistance, transportation services, and more.
- Werner, D. (1999). *Disabled Village Children. A guide for community health workers, rehabilitation workers, and families*. Berkeley, CA: Hesperian Foundation (entire book online at: www.dinf.ne.jp/doc/english/global/david/dwe002/dwe00201.htm). This unique rehabilitation manual empowers impoverished rural communities to meet the needs of children with disabilities in culturally and geographically appropriate ways. See Chapter 46: Playgrounds for all children.

Adventure Playgrounds and Outdoor Safety Issues

by Janet McGinnis

How is it that children's play yards have evolved from sand piles to the manufactured slides, climbers, and swings found on most playgrounds today? Children's outdoor play environments have been influenced over the years by play theories that date back to Jean Jacques Rousseau of France in the 18th century, who advocated for a return to nature speaking to children's need for a sense of freedom (1). Playgrounds have taken many forms over the years, with an overriding recognition of the important fact that play is essential to early development. Play is the work of early childhood and the way by which children learn and grow.

Attempts to provide the ideal outdoor setting for children's play have been inspired by the desire to support physical challenge, play and recreation, organized games, and exploration of the natural world. In the 1970s and '80s we saw adventure playgrounds develop using discarded materials such as scrap lumber, rubber tires, old vehicles, and other recycled materials. This concept of adventure playgrounds began in Europe in the 1930s. Sometimes referred to as "junk playgrounds" these were informal areas found most frequently in Scandinavian countries where children create their own design and structures under the supervision of a play leader. The popularity of adventure playgrounds has reappeared over the years (like bellbottom pants) and still has many supporters.

More recently, safety concerns have been raised as an increase in playground injuries has received media attention. The concern for safety is justified. Over 200,000 children are treated in hospital emergency rooms in the US each year as a result of playground equipment-related injuries (5). There has been a strong emphasis on identifying the cause of these injuries and constructing safer playground equipment. Much progress has been made in play-

ground equipment safety. As a result of guidelines published by the Consumer Product Safety Commission in the Handbook for Public Playground Safety, and the publication of the 2001 American Society of Testing and Materials International Standard 1487, important equipment-related safety issues such as unsafe surfaces, spaces that can entrap a child, protruding hardware, and unsafe equipment layout to name a few, have been addressed.

Many existing playgrounds, however, still have unsafe equipment (2), and this has received a great deal of public attention and concern. A simple solution that corrects all problems quickly is difficult to find. The cost of replacing unsafe equipment or purchasing equipment for new development has been difficult for many organizations, schools, and child care programs. Many programs find themselves with open areas where unsafe equipment has been removed, but nothing has yet replaced it. As dollars are being spent to upgrade playgrounds with safer equipment, there also appears to be growing awareness that children in our country are spending less time outdoors than in previous generations. In our culture, we seem to have lost sight of the health benefits and learning opportunities that abound in the outdoor environment that have little to do with playground equipment.

For previous generations spending time outdoors was a given. Children walked to and from school, played outdoors after school every day, played outdoors all day until dark on weekends, and their families had picnics, went to parks, or camped to make outdoor time a part of everyday life.

Today, many children have a very different lifestyle. More children are in child care, more families have two working parents, fewer parents are able to stay home with children, there is less community in neighborhoods, and there are more concerns about safety. As a result, children are going outdoors less. Often, the only exposure children have to the outdoors is when they go outdoors in child care. This awareness has brought many child care profes-

sionals to reconsider what they want children to get from their outdoor experiences.

Traditionally, the outdoors has been viewed as the arena for practice and development of gross motor skills. Children today undeniably need to have opportunities to be physically active. With growing rates of obesity reaching even into the preschool population, the clear message is that watching television, playing computer and video games, eating fast foods, and leading a sedentary lifestyle is not healthy for children or adults. In response to these trends, the National Association for Sport and Physical Education has recently published physical activity guidelines for children birth to five years of age (4). Offering safe opportunities for children to challenge themselves physically is important. Providing safe playground equipment is an excellent way to offer this challenge.

The outdoors environment can offer many more possibilities than playground equipment alone for active play and learning. The ways in which we develop outdoor spaces and outdoor programming for children in child care and school settings can address safety issues while also enriching childhood experiences outdoors.

Recess or Resource?

Many adults today came from an era of school recess—a time for children to take a break from classroom learning and "run off a little of that energy." The outdoor time during school was generally a time children played on the available equipment, played ball together, often formed their own play groups, and teachers were often on the side, available but uninvolved. The word itself, "recess," implies taking a break from ... what? The classroom? Learning? The underlying attitude is that children learn in the classroom and stop learning or take a break, outdoors.

As early childhood professionals, we know that children learn from play and that children do not stop learning when they go outdoors. But what messages are we giving children in the traditional playground setting? Generally, play-

grounds have a few pieces of equipment, protective surfacing, and are enclosed by a fence. Often, equipment is crowded to the point that there is not space to run, and the setting does not reflect a natural world. For children in full-time care, this may be their only experience of the outdoor world.

We may not believe that children stop learning outdoors, but in many schools and child care settings, the outdoor areas have not been embraced as part of a learning environment, have not been developed, and are not utilized by children to inspire learning or active play. Children get bored if they have the same few pieces of equipment to play on every time they go out. And it isn't safe to bring loose parts, riding toys, or construction toys into a playground equipment area.

How Can We Strike a Balance?

Balancing safety and risk is perhaps the biggest challenge faced when developing outdoor learning environments, and there are no universal answers to the questions that arise. We have come to hear the many cautions about the outdoors as reasons to not go out at all. There are dangers not only with equipment but also with sun exposure, ozone, children's clothing, poisonous plants, insecticides and pesticides, and lead paint. We are told of the need to protect children's heads on riding toys by using helmets, then we find that there are issues related to head lice and hazards with children wearing helmets on equipment being in danger of becoming entrapped. It seems that our solutions create new problems.

In an old favorite, *Mud, Sand, and Water*, by Dorothy Hill, Carol Copple, ed., brings attention to the health and safety issues related to sand and water play and states, "The challenge is to provide a safe play environment and yet ensure that children do not lose out on some of childhood's finest experiences: squeezing mud through their fingers, blowing bubbles, creating worlds in the sand. The many joys of mud, sand, and water, after all, remain unchanged!" (3).

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses. This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

Striking a balance is not easy. We are learning more every day about how to provide the best quality and safest environments for children, and we need to pay attention and use that information to improve our programs. Safety in the outdoor learning environment results from a well planned design and installation, regular maintenance, supervision, planned activities, and opportunities for guided learning. Safety involves much more than the physical environment.

Professionals working to improve outdoor spaces for children, whether they come from a design background, early childhood education, or manufacturing, have become increasingly challenged to the point of frustration as they attempt to address health and safety concerns.

To strike a balance, it is important not to succumb to a reaction in either extreme:

Denial: These safety cautions are ridiculous—ignore them! Let kids be kids! We could never create an outdoor environment that would satisfy all these health and safety concerns!

VERSUS

Alarmist: Let's make sure nothing bad could ever happen outdoors to a child under any circumstance. Or, it's so dangerous out there! It's safer to stay inside and not go outdoors at all.

The first response results in a hazardous environment, the latter an environment with no challenge or perhaps no outdoor time at all.

The bottom line is that we cannot childproof the outdoors, but we can make it child friendly. Outdoor environment conditions change daily with weather, seasons, and use. Health and safety issues are continuous and changing.

Suggestions for Striking a Balance:

1. Embrace the rules: This is a bold request in light of the many rules that are available and the many people who react negatively to rules. Perhaps it is helpful to think of rules as being the

guardrails that keep us from driving off the road. Let's face it, we need guidance sometimes. And we have wonderful resources to guide us to address health and safety issues outdoors. In addition, every state has licensing rules that may provide additional guidance.

2. Provide a wide range of opportunities outdoors for children. Provide anchored equipment safely, and don't let it dominate the outdoor environment.

3. Plan for safe activities, storage, and use of materials in the outdoors. Health and safety guidance for this can be found in sanitation rules or in *Caring for Our Children: National Health and Safety Performance Standards for Out-of-Home Child Care Programs*, Second Edition, 2002, published by the American Public Health Association and the American Academy of Pediatrics.

4. Develop reasonable and workable rules and an outdoor environment maintenance plan using a team approach utilizing directors, caregivers, children, and parents. Include child care health consultants, licensing consultants, and other professionals available to your organization in the plan as well.

5. When children spend time outdoors, they will undoubtedly interact with their environment, whatever it may be, and explore, be creative, and come up with ideas and things to do that perhaps their caregivers did not foresee and for which they feel unprepared. Where there are no rules, consider the value versus the risk. For example, there may be no rule about bare feet; caregivers are in a position to make a judgment call. Some will strongly oppose allowing children to have bare feet outdoors and some will feel strongly that it is an important part of the outdoor experience. Weigh the value of the activity and the risk.

Risks: Cuts, parasites (remote risk), skin infections, injuries to feet, burn to feet from hot surfaces.

Values: Feeling mud, sensory input, freedom, taking risks, learning limits, good grip, manipulation, slows down running.

Individual caregivers will have varying degrees of comfort with the outdoor environment as they do indoors. The decisions often require thought and asking the question, "How can we make it possible for this activity or feature to be safely offered?" The answer will vary from one setting to another. It is not easy, but it is our responsibility to provide opportunities for children to be challenged, stimulated, and safe outdoors in child care settings.

References

- (1) Christiansen, M., & Vogelsson (eds.). (1996). *Play It Safe: An Anthology of Playground Safety*, (second edition). Arlington, VA: National Recreation and Park Association.
- (2) Fise, M. E., & Morrison, M. L. (2001). *Playing It Safe: A Fifth Nationwide Safety Survey of Public Playgrounds*. Washington, DC: US Public Interest The Consumer Federation of America, US PIRG.
- (3) Hill, D. M. (1977). *Mud, Sand, and Water* (seventh ed.). Washington, DC: National Association for the Education of Young Children.
- (4) National Association for Sport and Physical Education (2002). *Active Start: A Statement of Physical Activity Guidelines for Children Birth to Five Years*. Reston, VA: NASPE Publications.
- (5) Tinsworth, D., & McDonald, J. (2001). *Special Study: Injuries and Deaths Associated with Children's Playground Equipment*. Washington, DC: US Consumer Product Safety Commission.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 2.3. True/False

- ___ 1. The reassessment of outdoor play environments should be guided by an awareness of the power of play.
- ___ 2. Adventure playgrounds are child-centered but have an adult play leader available to lend assistance as needed.
- ___ 3. Loose materials allow children to reconfigure their play space to follow their creative instincts.

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses. This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

- ___ 4. Adventure-type playgrounds encourage children to identify problems and challenge themselves to solve them.
- ___ 5. Interacting with the natural environment in open-ended play experiences teaches children to respect the Earth.
- ___ 6. A useful way to approach the planning and design of outdoor playspace is to ask the question, "What can the children do here?"
- ___ 7. When designing an outdoor play environment, it is best to plan for only the elements that you can afford at the present.
- ___ 8. A truly welcoming environment for children with special needs cannot exist unless the staff and the other children have an awareness of their special needs.
- ___ 9. Children only benefit from outdoor play if high-quality playground equipment is available.
- ___ 10. The concept of "recess" implies that children learn in the classroom and take a break from learning when they go outdoors.
- ___ 11. The best attitude to support children's learning in outdoor activities is, "How can we make it possible for this activity or feature to be safely offered?"

(1. T, 2. T, 3. T, 4. T, 5. T, 6. T, 7. F, 8. T, 9. F, 10. T, 11. T)

Correct Statements for False Self-Check Items

Items 7 and 9 in Self Check 2.3 are false. Please review the following correct statements.

- 7. Plan for the future—from the very beginning. Even if you can't afford all the parts that you eventually hope to provide, include these in your plan. This will avoid the need to move pathways, structures, or landscaping later on when you are ready to add additional features.
- 9. Although high-quality (and safe) playground equipment is beneficial, the outdoors environment offers far more possibilities for learning and active play than playground equipment alone.

Time Outdoors: The Real Story

Directors and teachers of several early childhood programs shared with Exchange their attitudes about outdoor play, their responses to some of the issues, and their most successful activity ideas.

Setting Goals for Time Outdoors

"Our goal is very simple. We provide children with opportunities for free expression, choice, and as much self-government as possible in a healthy environment." — Julie Goodan

"We strive to give every child the opportunity to use her or his body to explore space effectively and to enjoy active play." — Leanne Sanjume Errett

"Our goals are:

- to provide practice for large muscle skills through climbing, jumping, pushing, running activities;
- to provide practice for small muscle skills through sand and water play and painting and drawing;
- to enhance self-esteem;
- to increase social skills by participating in group games and activities;
- to allow children to engage in more active dramatic play;
- to allow children to experience freedom not always possible indoors;
- to provide experiences for children to learn about the outdoor environment and to increase vocabulary;
- to make sure that outdoor play is not just a time to release energy."
— Tammy Strang and Alex Govis

"Our first goal is to make sure that going outside is just as important as each other part of our curriculum. The second goal is for the staff to be actively involved while on the playground—the

curriculum continues. Our third goal is to be sure that all our outdoor experiences are safe, exciting, child oriented, and most of all fun for staff and children." — Sandy Roberts

"We take babies outdoors for fresh air and a change of environment."

— Karen Kelly

Achieving Goals for Time Outdoors

"We brainstorm how we would plan curriculum if we had no classroom. The premise would be that only environment is different but our goals for each area of development remain the same."

— Leanne Sanjume Errett

"We encourage children to explore and experiment in the outdoor environment by providing a playground that has a grass area, trees, sidewalk, wood chips, climbing equipment, sand and water tables, and a picnic table. We encourage use of all their senses. We ask open-ended questions and encourage language usage. We talk about what the children are experiencing. We provide a balance of active movement and quiet/restful activities in all areas of the curriculum." — Tammy Strang

"We are constantly observing the children to find out what they are interested in. We plan activities which expand on their natural curiosities. The activities provide our children with hands on experience and promote growth in all areas of development."

— Kristin Gotshall/Denise Graff

"All preschool classrooms go out at the same time. We use a team teaching approach to monitor all areas of the playground. Teachers position themselves in different areas to encourage positive social interactions, safe play, and to facilitate children's ideas for games."

— Debbie Hellyer

"We provide children with a safe outdoor play area while providing a well trained staff to keep a watchful eye on all activities. Staff members emphasize the child's ability to handle negotiation and conflict resolution as often as possible." — Julie Goodan

Evaluating What Is Happening

"Outdoor play is an extension of what goes on in the classroom, with staff sometimes interacting directly with children and sometimes observing and guiding. If the staff seem to be spending more time as referees and nurses—settling disputes, tending to hurt feelings or bumps and bruises, or if the children are wandering around—then it is not a happening time."

— Leanne Sanjume Errett

"The happiness of child and adult tells the story." — Karen Kelly

"We complete weekly observation sheets on the children and their interests. Each area of the playground is always supervised by a teacher."

— Tammy Strang

"We evaluate our outdoor program on a daily basis through observations and our interactions with the children. Every year we meet to discuss how things have gone during the past year and make changes as necessary."

— Kristin Gotshall/Denise Graff

"Teachers's observations are critical. We ask them to observe children's social interactions and play, gross motor activities and abilities, individual interests and attention spans, and interactions with other children and with staff."

— Debbie Hellyer

"Staff observes children's enjoyment of specific activities. Lack of conflict is also an indicator of successful play."

— Julie Goodan

Encouraging Staff to Enjoy Time Outdoors

"We tell parents that their children will go home dirtier than they arrived, so teachers feel at ease to plan activities that will enhance exploration and use of the senses. We get together and brainstorm ideas for outdoors. I drop notes to individual staff for a special activity outdoors. I'll hang a note on the staff board praising staff for the fun activities I see going on outdoors. Memos are sent out every so often to reinforce out-

door activities and staff responsibilities.

"I remind staff: Children may have fun, you may have fun (yes, even you!). Play with the children, enjoy their playtime. Chase them, push them on the swings, talk with them, play ball with them. And, if they don't want you to play, be sure you're watching them. Have fun. Smile—it's the shortest distance between two people."

— Sandy Roberts

"We help them get out and encourage encourage encourage. We have a lot of problems getting infants out even with a separate, beautiful yard. The infants are on individual schedules and ... well, the staff just drives me crazy because they don't get out as often as I feel they should. Putting children in the stroller (four child stroller) and going for a walk is done daily when the temperature is above 32 degrees."

— Karen Kelly

"We try to help staff understand that outdoor time is just as important as any other time of the day."

— Tammy Strang

"We encourage staff to dress appropriately so it's easier to become involved. We encourage interaction with and facilitation of children's play. And we make sure the environment is safe."

— Alex Govis

"The director plays with the children; this encourages other staff to participate in activities. We swing, slide, climb, and engage in water play."

— Julie Goodan

"I reassure them that outdoor time doesn't have to be planned, restrictive, or full of group games. Although children play differently outdoors than indoors, they still need guidance. I encourage staff to play with the children, but not all the time; and to supervise, but not as an authority figure. I remind the staff that we adults can also benefit from messy, loud, wet play."

— Leanne Sanjume Errett

* * *

We wish to thank the following directors and teachers for contributing ideas for this article:

All-Time Favorite Outdoor Ideas

Provide materials to build platforms, shelters, obstacle courses, riding trails and create a large sand area for construction site activities where children can build and create on their own.

Dump three or four loads of sand or dirt, plant grass, create hills of different sizes.

Water paint the sidewalk, the garage, the building.

Take a photographic hike. Take photographs of sights along the way to use for discussion, writing, storytelling, or art activities.

Water. Bubbles. Balls.

Put birdseed in the sensory table. After play, children can watch the birds eat the seeds that fall to the ground.

Go on a nature treasure hunt to search for pine cones, leaves, rocks, twigs, flowers, bugs, animal footprints, signs of pollution, worms.

Blow bubbles after it rains and the grass is wet. Bubbles stick to the grass, and children love to stomp on them.

Give children responsibilities for maintaining a vegetable garden and then eating the results of their labors.

Hide various objects in the sand table for children to discover and explore.

Let children shovel snow.

Paint a path for bikes and riding toys.

Eat a picnic lunch outdoors.

- Leanne Sanjume Errett — Rainbow Schools, Kahuku, Hawaii
- Sandy Roberts — Rainbow Express Preschool, Lansdale, Pennsylvania

- Julie Goodan — Somerset School System, School Age Child Care Services, Somerset, Kentucky
- Karen Kelly, Tammy Strang, Karen Devenish, Kristin Gotshall, Denise Graff, Alex Govis, and Debbie Hellyer — Gertrude B. Nielsen Child Care and Learning Center, Northbrook, Illinois

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

What's Going On Out Here? An Evaluation Tool for Your Playground

by Jim Dempsey,
Eric Strickland, and
Joe Frost

Imagine it's 10:30 in the morning of a typical day at your preschool and the four-year-olds (or toddlers or threes) have just burst outside to play on the playground. What the children do over the next 45 minutes depends on several factors, one of which is the quality of the physical environment.

- Will the four-year-olds find play equipment appropriate for their needs, or for those of ten-year-olds?
- Will they find places to play alone as well as in groups?
- Will they become bored because the playground that greets them today looks exactly like it has every day since enrollment?
- Will they feel secure knowing that a teacher can see them and is watching to prevent dangerous activities?
- Will they race to grab the only swing still working, knowing that to be second is to miss swinging today?

These questions suggest that your playground is an important place. Decisions about planning, equipping, and using the playground will have a profound impact on the quality of the education children receive; on the liability of

teachers, administrators, or owners; and on the behavior of children.

The research is clear and far reaching on the latter point: changing the physical environment changes children's behavior. If we want children to run, we provide open spaces (5) and if we want to increase group play, and to inhibit running, we provide less space (2). If we want children to engage in dramatic play, construction play, and art, we set up dramatic play centers, well-defined block areas, and art areas in our schools (4). If we want children to fight, we remove the equipment on the playground and pave it over with asphalt (3). If we want more language on the playground, we add complex, multi-faceted play structures.

What exactly do we want to see happening as we look out on our playgrounds? In general, we believe we want to see children using the outdoor environment in the following ways:

- **Safely**, with a balance between challenge and appropriate risk.
- **Educationally**, with an integrated outdoor and indoor curriculum.
- **Individually**, with each child having appropriate choices.
- **Cooperatively**, with opportunities to learn social skills.

To encourage these qualities of behavior, we must look at our playgrounds critically, both now and periodically in the future. To evaluate your environment and the ways your children are behaving in it, you can use the questions on the following pages to critically examine your outdoor environment.

The questions look at two different aspects of the problem—whether a particular quality does or does not exist in the physical environment and what behaviors may be expected in the absence of that quality. By using both physical characteristics of the environment and children's behavioral clues, you will be able to accurately evaluate your playground.

Summary of Playground Evaluation Tools

The questions in the surveys on the following pages do not constitute an exhaustive checklist for evaluating your playground, but they do allow you to know whether you are on the right track in providing appropriate outdoor learning areas. These questions let you evaluate not only the equipment, but also how overall design, specific elements of the environment, and teacher programming interact to create a functioning outdoor learning environment. Experienced playground planners can provide additional expertise, especially in critical areas such as adherence to safety guidelines, Americans with Disabilities Act compliance, and landscaping/construction issues. Playgrounds represent a large expenditure with implications for liability, marketing, and program quality. With so much at stake, teachers and administrators need to know "what's going on" out on the playground.

References

- (1) Frost, J. L., and E. Strickland. "Equipment Choices of Young Children During Free Play." In J.L. Frost and S. Sunderlin (editors), *When Children Play*. Wheaton, MD: Association for Childhood Education International, 1985.
- (2) Loo, C., and D. Kennelly. "Social Density: Its Effects on Behaviors and Perceptions of Preschoolers." *Environmental Psychology and Non-Verbal Behavior*, 3(3), 131-146, 1979.
- (3) Moore, R. C. "Before and After Asphalt: Diversity As an Ecological Measure of Quality in Children's Outdoor Environments." In M. Bloch and A. D. Pellegrini (editors), *The Ecological Context of Children's Play*. Norwood, NJ: Ablex Publishing, 191-213, 1989.
- (4) Shure, M. B. "Psychological Ecology of a Nursery School." *Child Development*, 34(4), 979-992, 1963.
- (5) Smith, P. K., and K. Connolly. "Social and Aggressive Behavior in Preschool Children As a Function of Crowding." *Social Sciences Information*, 16, 601-620, 1976.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Playground Evaluation Tool

Infant/Toddler Playground

Physical Characteristics

Do you have an infant/toddler playground separated by fence from play areas for older children? (This playground should serve children up to 42 months old.)

Does the toddler play area provide low climbers (maximum height above fall zone surface = 30") and emphasize sensory-motor activities?

Are there places for withdrawing (niches for quiet, solitary play)?

Are there places for adult/child interaction (benches, porch swings)?

Are there places for child/child interaction (clear bubbles, a pair of steering wheels side by side)?

Are there ample and appropriate riding toys with places to ride them?

Is there a sand box with sand toys of varying types?

Are there shelters from the elements such as shade overhangs and windbreaks?

Is there enough room on climbers or around structures to accommodate traffic flow and children's movement in view of toddlers' immature but developing balance skills?

Are there child-sized spaces to experience enclosure without being "closed in" or hidden?

Is there a secure fence?

Is the area inviting, warm, and comfortable?

Is the play environment dynamic with something continually new to discover?

Behavioral Clues

Do teachers spend too much time keeping the age groups separate? Do problems occur due to mismatches in ages and abilities of children in one play area?

Are children fearful as they play? Do you get nervous as you watch them on top of the climbers, intuitively recognizing the risk? Do children avoid the equipment? Do they explore the environment?

Do toddlers spend too much time begging teachers to hold them, using this strategy to get away from other children?

Do children balance their independent activities with times of rest or play in a teacher's lap?

Do you see social interaction, including imitation, parallel play, and sharing, without recurrent fighting?

Do children fight over too few toddler riding toys, or disrupt other children with their riding?

Do children play infrequently in the sand box or have to "scrounge" for sand toys?

Do toddlers want to go back indoors after just a few minutes, or gravitate too soon to a protected area?

Can children lose and regain their balance without crashing into structures or other children? Are children bunched together by physical constraints of equipment?

Do the children insist on getting in places you don't want them in order to find needed semi-privacy?

Do children hesitate to explore the far reaches of the playground, staying close to caregivers?

Do children and teachers want to go to the playground, or do they go only when they must? Do children protest when they have to leave?

Do teachers add new materials to the playground on occasion to stimulate interest and alleviate boredom?

Do you often observe boredom and resulting misbehavior while children are on the playground?

Playground Evaluation Tool

Preschool Playground

Physical Characteristics

Is the preschool playground separate from the after-schoolers' playground?

(If your playground does not provide physical separation of the age groups, then strict separation must be maintained through scheduling to ensure the safety of the young preschooler.)

Is existing equipment as safe as possible (free of known safety hazards)? See the box on the next page for a brief discussion of safety issues.

Does the playground have supports for different types of play?

(A variety of social settings and of types of play provides choices for children and allows each child to find the activity which best meets her needs.)

Is the arrangement of the physical environment based on functional activities (active versus resting areas, etc.)?

Are climbers and swings at appropriate heights for preschoolers?

(Although not mandated, heights of climbers should not exceed 54" and swing beams should not exceed 7' from ground to swing beam. A minimum of height is, however, necessary for children to feel challenged and to enjoy the heightened view.)

Can teachers see all parts of the playground, with no blind spots?

Is there enough of each type of equipment to prevent unnecessary waiting by children?

Does the main climber provide multiple exits, accesses, and options for different ability levels?

Are there natural elements such as grassy areas, trees, shrubs, digging areas, gardens, and water sources?

Behavioral Clues

Do younger children frequently end up as "victims" of too vigorous play with older children?

Do teachers and/or maintenance personnel regularly inspect the playground, reporting problems and taking remedial steps?

Do children engage in
solitary play, play in pairs, and group role play?
dramatic play (playhouses, niches for child-sized spaces, generic vehicle structures, wagons, trikes, and trike paths)?
exercise play (safe climbers and swings, areas for running)?
construction play (sand, sand toys, loose parts for construction, boxes, parachutes, etc. with storage)?
games with rules (open areas, balls, time for carrying out such games)?

Are children spread out in various locations and in various activities throughout the playground? Are all aspects of your indoor curriculum reflected in your outdoor environment?

Do the younger preschoolers appear reluctant even to attempt to use the climbers?

Do misbehaviors seem to occur often in certain hard-to-see places?

Does waiting time outweigh the activity itself, and are children misbehaving during waiting times?

Can children of varying skill levels play together without loss of self-esteem by the less skilled child?

Do children gain an appreciation for nature as a result of time spent on your playground?

(continued on following page)

Preschool Playground Evaluation Tool (continued)

Is there seating in areas designated for resting, "people watching," and teacher/child interaction?

Do children choose inappropriate places to sit and rest or socialize?

Are there outdoor art easels, chalkboards, or usable sidewalk surfaces with art supplies kept handy or brought out daily?

Do children regularly engage in art activities outdoors?

Are there novel activities or materials periodically brought to the playground to re-invigorate children's play?

Has children's play become too ritualized, or have children become disinterested in outdoor play time?

Is all play equipment in safe and complete working order?

Have necessary repairs and routine maintenance activities been carried out to optimize safety and function? Are children kept off of broken equipment until repairs have been made? (It is appropriate to keep them off, but unrepaired equipment should not be left in this state indefinitely.)

Are teachers trained in their responsibilities for supervision, grounds inspection, and crisis management as relates to playground safety?

When you ask teachers, do all feel adequately trained?

Does the playground look fun and attractive to children and parents?

Do prospective clients, parents and children, tend to linger and play on the playground when they come to visit?

Playground Safety Issues

As teachers or administrators in early childhood education, it is imperative that you take every step possible to make sure your playground is "safe." "Safe" does not mean a child will never get injured on your playground, but rather that you have taken every precaution to minimize the possibility of a serious or debilitating injury—this is called a "managed risk."

To make sure you have an appropriate "managed risk" level on your playground, there are seven critical areas:

- a systematically organized playground which promotes safe use
- careful selection of the equipment
- adherence to child care licensing standards
- adherence to US Consumer Product Safety Commission guidelines (available by calling [800] 638-2772)
- a carefully planned supervision program and staff training
- a periodic inspection and written service record
- a written record of actions taken after an injury

Think of the Above as Your Lucky Number 7

Common Safety Issues

The thirteen most common safety issues are listed below.

- falls to a non-resilient surface (grass is not acceptable)
- inadequate fall zone area (depth, type of cover, or size)
- head entrapments (spaces 3.5" to 9")
- entanglements (catching clothing or laces on protrusions)
- scrapes, abrasions, and punctures or protrusions
- inappropriate barriers (too low or horizontal in design)
- crush or pinch points between moving pieces
- falls onto lower portions of equipment or other pieces
- inappropriate placement of equipment in the playground
- swings attached to climbing structures
- inappropriate slide design (sides too low, no runoff/exit)
- inappropriate handrails or handholds
- developmentally inappropriate equipment

Think of the Above as Unlucky Number 13

Self Check 2.4. True/False

- | | |
|--|---|
| <p>___ 1. The ideal outdoor play area includes places for children to play alone as well as in groups.</p> <p>___ 2. Children may become bored by a playground that looks exactly the same every day for a long period of time.</p> <p>___ 3. An awareness of the presence of a responsible adult who is watching them helps children feel secure.</p> <p>___ 4. The design of the outdoor play area and the equipment provided affect children's behavior.</p> <p>___ 5. An asphalt-covered playground with no equipment encourages children to engage in creative dramatic play.</p> <p>___ 6. An ideal outdoor play area provides a variety of choices for children to participate in activities appropriate to their age and developmental level.</p> <p>___ 7. Climbing equipment for toddlers should not be more than 30" above the fall zone surface.</p> <p>___ 8. The absence of quiet places where toddlers can play alone may cause them to try to get away from other children by constantly begging teachers to hold them.</p> <p>___ 9. The infant/toddler playground should include places for adult/child interaction, such as benches or other seating where children can rest or play in a teacher's lap.</p> <p>___ 10. Playground places designed for use by more than one child, such as two steering wheels placed side by side, encourage parallel play and other social interaction without fighting.</p> <p>___ 11. An absence of sand toys discourages toddlers from playing in the sandbox.</p> <p>___ 12. Toddlers often search out small spaces to find semi-privacy and may insist on getting into inap-</p> | <p>propriate places if suitable places are not available to them.</p> <p>___ 13. Children's misbehavior on the playground is often caused by boredom.</p> <p>___ 14. Playgrounds and playground equipment must be regularly inspected and maintained to ensure safety.</p> <p>___ 15. Playgrounds for preschoolers should provide places for all types of play—active, exercise play; dramatic play; construction play; solitary play; group play; playing in pairs; and games with rules.</p> <p>___ 16. On the playground, spaces for active play should be separated from places for quiet play.</p> <p>___ 17. If children are reluctant to attempt to use climbing equipment, the structures may be too high.</p> <p>___ 18. For children's safety, playgrounds must have no blind spots.</p> <p>___ 19. Waiting a long time to use play equipment encourages misbehavior.</p> <p>___ 20. The ideal climbing structure has one entrance and one exit.</p> <p>___ 21. The presence of natural elements in the outdoor play area, such as grass, trees, shrubs, gardens, water, and digging areas, helps children gain an appreciation for nature during their time outdoors.</p> <p>___ 22. Outdoor play areas allow children to experience more freedom of movement and activity than is typically possible indoors.</p> <p>___ 23. Time outdoors should be more than just a time to release energy.</p> <p>___ 24. Both children and adults benefit from messy, loud, wet play outdoors.</p> <p>___ 25. When children are on the playground, the teacher's only responsibility is to watch that no one gets hurt.</p> |
|--|---|

- ___ 26. By observing children, teachers can discover children's natural interests and plan outdoor activities that expand on children's natural curiosities.
- ___ 27. Outdoor play activities provide opportunities for children to handle negotiation and conflict resolution.
- ___ 28. Asking open-ended questions is a good way to encourage children's language development during outdoor play activities.
- (1. T, 2. T, 3. T, 4. T, 5. F, 6. T, 7. T, 8. T, 9. T, 10. T, 11. T, 12. T, 13. T, 14. T, 15. T, 16. T, 17. T, 18. T, 19. T, 20. F, 21. T, 22. T, 23. T, 24. T, 25. F, 26. T, 27. T, 28. T)

* * *

Correct Statements for False Self-Check Items

Items 5, 20, and 25 in Self Check 2.4 are false. Please review the following correct statements.

- 5.** An asphalt-covered playground with no equipment provides nothing to stimulate children's imaginations or encourage creative play. Rather, as Dempsey, Strickland, and Frost point out, such an environment encourages fighting. *The design of the playground and the equipment provided influence children's behavior.*
- 20.** Climbers should have multiple access points and multiple exits. This adds interest to the activity and also accommodates children of varying skill levels.
- 25.** Teachers must certainly watch children during outdoor play time to help ensure that no one gets hurt. Teachers must be trained for supervision, grounds inspection, and crisis management as it relates to playground safety. But the teacher's responsibilities go beyond that. Teachers' responsibilities outdoors are very much the same as indoors—to facilitate children's play experiences by observation and guidance, to encourage and lend assistance as needed, and to engage with children as appropriate.

We Remember, We Create

by Rusty Keeler

*How do we describe in words
how a child feels when they dip
their fingers
in cool fresh water for the very first
time?*

Can we imagine?

*How can we know the feeling of
connecting with the earth
in youthful delight and wonder?
Can we imagine?*

Can we remember?

*We are part of Nature.
And Nature is a part of us.
We are connected to the planet
in every way.*

*And the world is alive.
We are surrounded by its life.
We are its life.*

*Life swims, crawls, flies, stands,
grows, dies.
We must remember life's blessings.*

*Green plants sparkle beside calm
water.*

Raindrops splash.

Sun shines brightly.

*As a child we form tiny, deep
connections with the natural world.*

We bend down and notice:

ants working in teams;

*life flowing through the veins of
leaves;*

*the pattern of the universe in the
face of a sunflower.*

*All children deserve friendship
with the natural world.*

*A garden, a flower, a small hill to
climb.*

We can help.

*Joining together, we create our
world.*

*Joining together, we build our
communities.*

We are Nature.

Our children are Nature.

Are our children in Nature?

Designing and Creating Natural Play Environments for Young Children

by Rusty Keeler

There is a new movement in the world of outdoor play environments—a shift back to nature. Instead of filling backyards and playgrounds with traditional metal and plastic equipment, early childhood centers across the country are transforming their outdoor landscapes into magical environmental playscapes. You too can create sensory-rich play spaces that stimulate healthy development, change throughout the seasons, and offer children a world of creative play and exploration. These new play environments, inspired by the local community and its natural resources, can be made from grassy hills, trees, herbs, paths, sculpture, sand and water, and more—all with an intriguing medley of colors, sounds, scents, and textures.

Cherished memories

Think about your childhood for a moment. What was your favorite outdoor place to play? What was that environment like? Do your memories evoke specific sights, scents, and sounds? What did you do there? What did it look like and feel like? Did this place change along with the seasons? What sort of games did you play and what did you discover there?

Most of us have vivid memories of our favorite childhood play environment. This was the place where we began to discover the wonder of playful exploration. It was the place where we first interacted with the natural world. This place was our introduction to the environment, our community, and the cycles of life.

The places that adults remember playing in as children are so often natural places—places with a stream, clumps of spongy moss, thick layers of slippery mud, fallen logs, or even a mound of dirt piled high in a vacant lot in the city. There is just something about connecting with the natural world that is so important for all people, particularly chil-

dren. These are the kinds of experiences that nourish our souls.

Unfortunately, these days many children don't have the kinds of opportunities that we had not so long ago. Our fast-paced culture now places greater emphasis on going, doing, and becoming, and less on wandering, searching, and discovering. With modern urban and suburban development, natural, or wild areas are less available. And now that both mothers and fathers often work outside of the home, a large number of young children are spending the majority of their days in structured child care and education settings. This means that the outdoor space at these centers becomes their outdoor world—the place they visit day after day. It is the place where many young children will first develop a relationship with the natural world. What will the children in your center discover out in the yard? What will they learn? And what will they experience?

Since children spend so much of their time in these settings, it is important to make these play environments as beautiful, educational, and engaging as possible. We need to realize that when we design a play environment, we are really creating children's experiences, which, if we do a good job, will become cherished memories. How do we create safe, meaningful environments that support and celebrate the cognitive, physical, and emotional development of young children?

Change of heart

After working for five years as the conceptual designer for a playground equipment company, I had the opportunity to work in The Netherlands for a Dutch playground manufacturer. I learned a great deal about children's play and development while designing play equipment for both companies, but it wasn't until I spent a year in Europe that I truly began to understand the value in children's playful connections with nature. In Europe, I saw public spaces and interactive public art like nothing I had seen in the United States. There were magical sculpture gardens and one-of-a-kind play environments. Neighborhoods and parks had playgrounds that blended seamlessly with

the natural world. Every child should have access to these types of dynamic playscapes. And every child can.

One of a kind spaces

A well-designed outdoor play environment should be a reflection and statement of the local community and its environment. And it should, of course, suit the individual needs and characteristics of each program. A play environment in Arizona, for example, should be different from one in Alaska, particularly because the materials and plants available in those regions are so different. Think of play environments as a microcosm of the greater environment surrounding the community.

Be creative. To create a truly rich, imaginative play environment, add local stone, native plants, and other natural treasures. And make use of your most valuable resource—the talent and skills of local artists and crafts people—by turning your playscape into a community-built project. Community-built projects are organized, designed, and constructed by community members. By making your project a community-built one, you'll cut down on expenses, establish new friendships and partnerships for your program, and infuse a sense of real belonging into the community.

Creating your playscape

To start, form a playscape committee. Ask staff members, parents, and community members to join. Then create an inventory of the talents and skills in your community. Can you find some masons who would be interested in being a part of your project? Carpenters? Artists? Gardeners? Next, create a list of materials and plantings that are available in your community. Are there places to gather boulders or old logs? Local plant nurseries or parents with knowledge of plants can help you make a list of safe trees and shrubs that grow well in your area. These two lists of resources will become your design palette.

Your center's playscape design will gradually evolve once you see the skills of the people that want to help build and what types of materials you may have access to. Once you have your basic de-

sign, the playscape committee should work on obtaining the necessary materials, tools, and volunteers needed for the construction. Oh, and don't forget the snacks!

When I design playscapes, I typically schedule four to six months for planning. Once the planning is completed, building the playscape typically requires four to five days with 25 to 100 volunteers each day. You are sure to enjoy the special moments your community members will share as they work together. Your project will leave everyone with a sense of pride and ownership that will last long after it has been completed.

Every community has surprise resources and talents. Sometimes all it takes is a bit of detective work to find them. In Caroline, New York, we contacted the city forester to see if he would like to contribute materials. He happily donated huge maple tree sections to our project. The trees had been recently cut down in the city, and this was a chance to give them a second life. A local sculptor used a chain saw to carve the sections, then sanded and polished them and transformed them into a beautiful, huggable sculpture. We covered the ground surrounding the sculpture with soft wood chips to make the sculpture safe for the children to climb. Add to that a simple maintenance plan, and the center had a wonderful, interactive work of art that the children will enjoy for years.

In Bellingham, Washington, volunteers collected smooth river boulders and local driftwood to create a playscape for young children with special needs. The large boulders were bonded together with cement to create a textural sand and water play sculpture. Colored marbles were embedded between the rocks to add a sense of discovery and surprise. Driftwood pieces were added to the yard as decoration with larger pieces used as balancing, climbing, and sitting areas. Native plants were also used throughout the playscape, giving the children the opportunity to play hide-and-seek in the tall decorative grasses, sit in the shade of trees, and enjoy the delicious aroma of herbs. With all these local elements, the children

who use this space get a first hand feel of their local natural environment.

In Skaneateles, New York, several of the members of an infant-toddler playscape committee were master gardeners, so that environment became very rich in plants. We created a Sunflower jungle, forests of Jerusalem artichokes and black-eyed Susans, a mini orchard of Dwarf Apple Trees, and we planted a variety of other trees, herbs, and shrubs. The owner of a precast concrete company donated a section of culvert to be used as a tunnel, and the owner of a paving company donated the paving for a series of winding tricycle paths. We added a rubber surface to the paths to help protect toddlers from skinned knees and to give infants a soft crawling pad as they learn to walk. As a final touch, a local metal fabricator made a variety of chimes so the children could experiment with sound.

Soundscape

Shhh. Listen. What do you hear right now? While we are typically a visually-dominated culture, the sounds in our environment have a tremendous effect on us, often subconsciously. The landscape of sound in an environment is often referred to as the soundscape. When we think of creating multi-sensory play environments, sound is an important element that should not be overlooked.

At Cornell University's Early Learning Center in Ithaca, New York, we created an entire soundscape for their existing play environment. Our goal was to incorporate sound in a way that complemented the existing play area. We did so by first spending time getting to know the space and becoming familiar with which activities and types of play occurred in the different areas of the play environment. Then we considered the following three uses of sound:

1) Sound as a backdrop to play. Ambient sounds create an overall mood that becomes a subtle part of the environment. Things such as wind chimes in trees make great melodies when the wind blows. Choose a variety for different sounds and textures—different sizes, different materials, even wood or bamboo. Many plants make sounds in the wind as well. Try planting large or-

amental grasses or bamboo, as well as trees that rustle in the wind like Quaking Aspen.

2) Sound as a by-product of play.

This is achieved by adding sound elements such as bells, chimes, and rattles to places where children commonly play. Think about what kinds of play occur in the different areas and how you can match the textures of sound to the types of play. Try to imagine what a gross-motor play area sounds like. What about a quiet, getaway spot? Now incorporate items into those play areas that will create the types of sounds you envisioned in those areas. For example, a quiet nook could have delicate chimes that ring when children pass into the space. A gross motor climbing tree or play equipment could have cowbells hung that jostle as the children climb.

3) Sound as the goal of play. Instead of incorporating sound as an inconspicuous part of the environment as described above, sound can also be used as an item that children can directly explore and play with. Install interesting instruments and sound sculptures for the children to experiment with. For example, you might include a metal drum for the children to bang, a set of bells for the children to ring, a giant marimba or xylophone to play a song on, a gong to hit, or a bell to clang.

What It's All About

Buckminster Fuller once said, "Playgrounds should be renamed research environments, because that is what the children are doing so vigorously. They are not just playing. They are finding out how the universe works." We know that through play, children learn vital problem-solving skills, gain a sense of accomplishment, and are introduced to the joy of exploration. By providing young children with sensory rich playscapes filled with colors, delightful sounds, surprises, textures, and enticing scents, you will open the doors to a world of discovery. This is what memories—and knowledge—are made of!

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Community-Built Playscapes

by Rusty Keeler

Editor's Note: Before starting a project, make sure you involve someone who knows licensing, regulations, safety standards, and so on to guide the work.

From small nature corners to large playscapes, people are building unique natural spaces for children's play and exploration—but how are they doing it? In today's spirit of community participation there is a way of planning and building a playscape project that not only creates amazing spaces for children, but saves money, strengthens ties to the community, builds lasting friendships, fosters a sense of pride and ownership in the project, and helps ensure the playscape's long-term care and maintenance. This method of building is called the Community-Built Process and folks all over the world have 'seen the light' and are building projects that utilize donated materials and volunteer labor to get the job done.

Through my playscape design business I've seen the Community-Built Process work time and time again; it's an amazing thing to be a part of. After months of planning and organizing by a dedicated playscape committee, the first big construction day arrives and swarms of volunteers spread out over the yard like worker bees each doing a specified task. Local businesses donate food and trucks deliver discounted building materials and plants. Many people working together can make huge transformations happen right before your eyes. Each hour more gets done until the last glorious day when you stand back with your fellow volunteers and marvel at the feat you've accomplished.

Yes, the Community-Built Process involves hard work and careful planning, but the end results are certainly worth it. You can apply the process to any size project, from adding a small herb garden to your backyard to re-envisioning your entire playspace. All it takes to begin is a sense of humor and a dedicated playscape committee to assist you in the planning and organizing; from there, magic happens.

Community-Built projects are as diverse as communities themselves and can range from community murals, gardens, concrete sculpture, science centers, adobe churches, to affordable housing projects. The photos you see here are from a natural playscape community build last summer at the Garden City Community Church Nursery School in Garden City, New York. I asked the ever-enthusiastic director Cathie McCullough to share some of her thoughts about her Community-Built experience.

Q: Why did you choose to do a community build?

A: We decided to do a community build to keep down costs, create a sense of ownership for the parents and church community, and we thought it would be a fun idea — and a way to truly have a hands-on experience with what was being built.

Q: What was your Community-Built experience like?

A: Our build took place over a four-day period: Friday through Monday. Volunteers were scheduled for different times and days. When they showed up, they checked in, got a name tag, and told us what their skill level was. Then we put them to work! We had professional builders working alongside our volunteers—and that made a HUGE difference in getting everything accomplished.

There was a food committee that set up breakfast, lunch, and snacks throughout the day and we also had child care available for those volunteers bringing children. The entire build area was busy with carpentry projects, planting projects, and miscellaneous jobs—including moving the never-ending mulch pile! I am sure that everyone who came to volunteer was sent to the mulch pile at least a few times!

Q: How did the Community-Built process help build community?

A: Our community build strengthened and built friendships. In the past, many of our school parents would only see each other at drop-off and pick-up times. The community build gave the parents a chance to really get to know the faces they casually saw each week

10 Keys to Community-Built Success

'Community-Built' may be defined as an interactive process that involves the local community in the design, organization, and creation of projects. At its heart is a firm belief in volunteerism, self-empowerment, and the value of community. It's the perfect way to build a natural playscape!

1. Form a Playscape Committee

Put together a diverse group of energetic people who will volunteer to plan and organize the Community-Built construction days. After brainstorming and designing your playscape, divide the group into sub-committees, each with a special responsibility, such as recruiting volunteers, locating tools and materials, providing child care, or organizing volunteer meals.

2. Inventory the Community

Assess the local flavor of your community. What are the histories, industries, talents, and natural features of the area? These can be incorporated into the design and construction.

3. Look for Local Artists

What talented people can be recruited from the community? Look for sculptors, muralists, and gardeners to add features such as mosaic benches, wrought-iron gates, sound sculptures, or stepping stones.

4. Use Native Plantings

Use plants that are naturally found in your area. This makes it easier to get local donations and connects people with the native plants of their community. It also helps with maintenance, because native plants know how to survive in your climate.

5. Approach Local Businesses and Service Groups

When looking for volunteers, materials, and tools, the committee should look to local businesses and service organizations for assistance. Groups like Kiwanis and Rotary often support Community-Built projects. Local businesses can donate everything from hardware and landscaping supplies to tents, tables, and food.

6. Schedule and Plan for Construction

Plan for plenty of time to organize the community build days. Planning timeframes often range from four to six months. Pick build dates when the weather is most likely to be pleasant, when people won't be away on vacation, and when all the members of the committee can be present. A long weekend or a series of consecutive weekends works best.

7. Food and Child Care

Feed the masses! Have healthy meals, snacks, and drinks available throughout the build days for the volunteers. One member of the committee will be in charge of food and asking local businesses for donations. By providing child care during the build, you make it easier for parents to spend the day volunteering.

8. Safety

Have a plan in case of accidents. Keep a first-aid kit on hand and notify local ambulance groups of your project beforehand.

9. Thank Yous

Keep track of all the businesses and individuals that contributed to your project. Send thank you cards to all the volunteers and write letters to the newspaper mentioning all the businesses that supported the project.

10. Join The Community-Built Association (CBA)

CBA is a not-for-profit association of professionals who are involved in all aspects of the Community-Built field. They hold inspiring conferences and have newsletters all about the Community-Built Process.

Visit their web site for more information:

www.communitybuilt.org and www.earthplay.net.

at school. The process also introduced the church members to the school families. Many people came away from the experience with a lot more confidence in what they could accomplish and we all learned new skills like roofing, planting, and even plumbing! When people come together to do physical work, a sense of camaraderie pervades the whole experience. There is something about working hard, sweating, pushing yourself beyond what you thought you could do, and having others doing the same, right beside you, that forges bonds of community and caring.

Q: What advice do you have for other people considering doing a community build?

A: My #1 piece of advice would be to involve as many people as possible in the planning of the project. Give those people responsibility for the completion of certain tasks so there is a sense of ownership. As more and more people get involved, the energy surrounding the project builds and you can't help but have success!! It is also important to plan and organize way ahead of the time of the build. There are so many things that come up at the last minute; the more you have prepared ahead of time, the easier it is to deal with the last minute surprises.

You also need to be extremely flexible—as the build progresses; you may find that things cannot be done the way you thought they could be. Always be prepared with Plan B! It really helps to have a skillful person (professional or volunteer) in a leadership role at these times. They have better ideas for what all the options are. Many times you will hear that something cannot be done, but my experience is that most things can be done—it usually just takes some outside-the-box thinking!

Shady Oaks Playscape Revisited

by Rusty Keeler

The project and school discussed in this article are highlighted in Natural Playscapes by Rusty Keeler (Exchange Press, 2008).

Shady Oak Christian School serves children ages two-and-a-half through second grade and in the summer provides programs for preschoolers through fifth grade. The school has an amazing home-like environment with a super go-getting director, Joyce Trigger. Years ago we worked together to devise a Master Plan that she could add to in phases over time as budgets and energies would allow. Like all great playscapes, it is a work in progress. One of my great joys is to get e-mail updates from Joyce with pictures of her latest playscape additions and construction projects. I thought you would be interested in hearing a little bit about it in her own words.

Why do you think nature is important for children?

Nature seems to be inherently important—even 'natural' to children. They know what to do in and with nature. They need guidance, but not rules or strict guidelines. Nature seems to provide missing pieces for children and for all of us. If a child is anxious or stressed, she can be calmed by digging in the sand. If she is sad or lonely, she can be brought to life and become exhilarated while running up the big hill. If a child is lacking social competency, maybe has not even learned the names of friends he has been in school with for months, he can dig for worms with one or two others while being guided to learn their names. In the same way, I can get my 'empty places' filled up by a day or afternoon at the beach or even by hanging out with children on our playscape! Others can find a missing piece of themselves on a hike or walk in the woods.

Why did you choose to build a natural playscape?

Because children must have experiences in nature! And they are not getting them in our suburban culture where they play safely in their fenced-in yards or driveways. Most children do not have opportunities to play down by a creek or in a wide-open grassy field. Many parents do not want their kids to get dirty or bug-bitten or sweaty. I want children to love being outdoors with the elements of nature. Like:

- just how deep can you make a hole in a large sand area?
- knowing how sturdy and smooth bamboo feels ... and that it is strong enough for them to hang from!
- how you can be invisible to your friends hiding in a jasmine tunnel
- how much water do you need to mix with mulch and dirt to make a perfect chocolate soup?
- where is the best place to find earthworms, even when we haven't had rain in weeks?
- just how loud of a sound can you make hitting that garbage can lid hanging from the play equipment?

If we don't engage children in nature while they are young, they will be less inclined to care about it and desire to be in it as they grow up. We need them to care about preserving our land, water, and animals. How can they know why if they are playing on manufactured playgrounds?

What do the children do in your playscape?

- make soup, muffins, birthday cakes in the sand areas or in the kitchen area
- get sweaty running and chasing each other with self-made tag games, making and enforcing their own rules in the open area
- hide and find each other in the jasmine tunnel
- help me trim bamboo or ginger leaves
- drive their friends anywhere in the red boat (including escaping from the sharks!)

- sit and talk with an adult or child on one of the rocks or wooden benches
- taste peppermint or rosemary leaves before pinching them and putting them in their concoctions in the kitchen area
- wear firefighter hats and carry short pieces of garden hose as they climb the equipment to 'put out a fire'
- run wildly up the big green hill feeling as high as I have on a mountaintop in New Mexico
- lie calmly on the side of the big green hill and watch clouds take shape
- walk with great skill or rather stumbly along the stepping stones that edge parts of the playscape

I could go on and on and on.

What kind of maintenance is there?

Trimming scraggly, wild growing jasmine vines. Trimming bamboo stalks that are not naturally trimmed by constant trampling by kids' feet. Replacing rotting ropes and twine that hold bells or other soundscape items. Checking crevices for wasp or other pesky insect nests.

What do you still want to add to your outdoor space?

I'm still dreaming of a section that we could develop for outdoor instruments. They are pricey, but I still want to incorporate them. I always want to add art pieces. Our wonderful carved fish that hangs on the fence just above the mirror and the red boat is rotting. Boo!!!! Some bugs have gotten in it, but we still have it hanging. It's not gone yet. Having appropriate art outdoors adds so much.

How do you work with licensing?

The best way to work with folks who don't understand why we would want to 'bother' with such a playground is to inform them about what is good about the components. My experience is that they don't really want a lot of theory. They enjoy, to a certain extent, seeing children engaged and having a wonderful time on a playground, but mostly they

want to see no injuries or accidents. So staff must be vigilant about supervision. And good judgment is so necessary on all caregivers' parts. There are so many episodes that occur on our playground where there is not a ruling or a precedent set. Such times require good thinking and quick decision-making. Children are exposed to reasoning, problem solving, etc. I KNOW that there are amazing, measurable benefits that come from all the experiences on this type of playscape.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Living Willow Huts

by Rusty Keeler

Children and Nature. Every day we work hard to bring the life-enriching properties of nature to young children for play and learning. The sunflower houses planted and arranged last year were magical: the plants grew to create a living "room" for children that changed with the seasons. Ready to take the next step? Try planting a Living Willow Hut—the ultimate hidey nook and my personal favorite natural playscape element!

Living Willow Huts are inexpensive to make, fun to plant, easy to grow, and make beautiful spaces for children. They involve planting dormant willow shoots in the ground and weaving them into shapes that will sprout and grow over time. People have been creating similar living architecture throughout the world for centuries in the forms of living fences, gazebos, and garden sculpture. Now folks are planting living willow in children's environments that grow into tunnels, domes, playhouses, and huts. You can plant them too.

Have you heard of a weeping willow tree? The willow most widely used for willow structures is in the same family as the weeping willow tree but grows more shrub-like by the sides of rivers and wet areas. *Salix viminalis* is one variety often recommended. Many kinds of plants and small trees can be used to create living architecture, but if you are a beginner using willow is a good way

to start. It's easy to grow and forgiving! You don't need roots to transplant willow; simply take cuttings of the whips/branches in very early spring and plop them in the ground. After a bit of time and plenty of watering your plants will begin to sprout roots and leaves on their own! Amazing. Need to find out where you can find the best willow? Contact local plant people, nurseries, or cooperative extensions in your area for advice.

The Living Willow Hut project is at the Syracuse University Education and Childcare Center in Syracuse, New York. The willow hut was the finale of a year-long Arts-in-Education grant that my wife and I were fortunate to be a part of with staff and preschoolers. The subject of the project was "Water and Habitat." As the year progressed, the children's imaginations and artistic creations began focusing on the life and habitat of beavers, so we all decided to construct a child-sized beaver lodge in their outdoor classroom. The center contacted the University's forestry department who gladly helped us obtain our building material of choice: living willow.

Over a rainy weekend in early spring a group of parent and staff volunteers gathered to plant the willow in the ground. Supplies included piles of living willow shoots and non-living willow shoots, and string for lashing. We started by marking the ground where the willow hut would go. We then planted a looping network of the larger, non-living willow pieces in the general shape of our hut and tunnel. This would give us a strong frame on which to lash the living willow.

When picking the height of the tunnel and lodge we had to remember that it should be child-sized and cozy, but with enough room for adults to climb inside, too. We poked 2" diameter holes 12" deep in the ground with a sturdy iron prybar. We cut 1" off the end of each living willow shoot to leave a clean end to plant, stuffed them into the holes, patted them firmly in the ground, and lashed them together. We had fun layering and looping the branches to form an organically flowing shape. It looked like it grew there on its own!

The non-living willow becomes an attractive structure that is great fun to play in; but the real magic happens when the willow begins to green up and branch out. Wow! Within the very first year this hut was growing new shoots and leaves. Now, years later, the staff simply weaves the new shoots back into the structure for a thicker canopy of green. The hut itself becomes a renewable resource of willow shoots to be planted in other areas of the yard or shared with other local centers.

Ready to build a living willow hut? Your children will love it. Now is the perfect time to start planning — and helping other groups to plan, too. When you find out where to obtain willow or similar plants, share the info with other interested centers. When you build, invite folks to help you. Join the EarthPlay Network (www.earthplay.net) and share pictures and stories with people all over the world. Ready to keep the movement going? After your willow hut gets established you could even start a "willow collective" in your community to help folks build their own willow structures—with cuttings from your own willow hut!

Ah, willow huts

Part 2: Constructing a Living Willow Hut

a step-by-step "how-to" guide on the basics of living willow hut construction

Winter (October–April) is the perfect time to start planning your project, because the best time to plant living willow is in the dormant season—before new leaves start to sprout.

While there certainly are time-tested techniques for building willow structures, the best advice I have is to experiment. I've seen yards in Europe hosting neat and proper willow tunnels with delicate curving lines and measured archway weavings. But I've also seen rowdy adventure playgrounds where kids over the years have haphazardly planted willow here and there and tied pieces together to form sculpture and houses with great success. Willow is vigorous growing and forgiving of

Materials you will need:

Living willow rods or shoots. These do not need roots and can simply be snipped from a larger living plant. They should be 3' to 6' long and can be up to the size of your thumb in thickness (although smaller shoots have better success at growing). Gather 10–50 shoots, depending on the size of your project. Store them in a bucket of water until you are ready to plant them.

Non-living willow or flexible branches of another plant—to use as the initial structural frame

Flexible string or cord—to tie the willow shoots together.

tough treatment, so feel free to plant wildly and learn from your successes and mistakes.

While almost any type of willow can be used for your project, varieties of *salix viminalis* are ideal because this species produces long straight rods that can be easily woven together. Near my home in upstate New York I've found this type of willow growing wild beside creeks and rivers. Ask your local cooperative extension about likely places to find willow or good potential substitutes.

Think of the steps given here as an introduction to the basics of living willow construction, and let your imagination decide what your wild green creation will look like. When you are dreaming, some things to consider are:

- imagining how children will use the structure
- how many children you would like to play inside at one time
- how to best orient the doorway for easy supervision by adults.

After a number of years, you can use your hut as a willow shoot making machine and sustainably harvest shoots to build new willow structures on your playscape or to share with friends! Don't forget: experiment, experiment, experiment. Try new shapes and creations. Have fun. Learn from your mistakes. Take pictures and share them with the EarthPlay Network www.earthplay.net.

Suggested reading

Warnes, J. (2000). *Living willow sculpture*. Search Press.

Step by step

1. Pick a sunny spot. Moist soil is best, but willow is hardy and tolerant of all conditions.
2. Mark out size and shape for dome. A 6' diameter circle is nice.
3. Remove turf where you want to plant.
4. Poke holes in the ground 4"-6" deep. Use a crowbar or prybar. Space holes 8"-12" apart. Don't forget to leave spaces for the doors.
5. Insert willow rods into holes.
6. Tie willow rods together. Weave them into different patterns for strength—even horizontally.
7. Water regularly the first summer. Willow should begin sprouting leaves in late spring.
8. As willow grows, continue to weave new growth into structure. Trim any branch protruding at eye level.

Tools you will need:

Tape measure; shovels; spades; prybar/crowbar or rebar; pruning equipment such as clippers, loppers, pruners, hedge shears, hand saws, scissors, and a sharp knife; hose for watering; work gloves and eye protection for safety.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

A Spring Playscape Project: Building a Tree Circle

by Rusty Keeler

If you are dreaming of adding nature to your yard, this project may be perfect for you. The Tree Circle is a green gathering area for children made by planting trees in a circle. For children, the Tree Circle becomes a magical place for dramatic play, quiet retreat, or lively nature exploration. For teachers and parents it becomes a shady grove for snacks and stories. The trees create a sweet spot that changes during the seasons and grows over time. A beautiful addition to a child's life—and yours too!

To begin, put together a 'beautification team' of excited volunteers wanting to help. Do you know people who have knowledge about plants or have planted trees before? Got any friends or staff with a green thumb (and a strong back!)? This team will be the folks who make design decisions, select the trees, and plant the trees. Local plant nurseries, landscapers, and landscape architects can answer questions or offer advice. They may even donate some time or trees if you ask nicely.

Here are the basic steps:

Decide where to plant the Tree Circle — Think about sunlight and where you want shade. Make sure to pick a spot where your trees will have room to grow. Ask your team to help you decide.

Select what kind of trees — Dwarf fruit trees and smaller ornamental trees stay more 'child-sized' as they grow and will have beautiful flowers in springtime. Evergreen trees create a tree circle with a whole different set of sensory experiences. Plant native trees that are indigenous to your area.

Decide on size — Think of the Tree Circle as a room. How many children do you want to fit inside? What kinds of play activities do you want to have room for in this outside room? Create a space that feels cozy but also gives the

treetops room to grow together. The Tree Circle may someday look like a living gazebo when the shady treetops grow together!

Decide on number of trees — When you know the size and shape, sprinkle flour on the ground in the shape of your circle to help you visualize the new space. How many trees will fit around your circle? Depending on the size, some tree circles can have six or eight trees; others may have only three or four trees. Any number is fine. Be sure to leave a space open with no trees on one side to create a fun entrance. Which way should it face?

Imagine benches and ground cover — Use whatever resources and materials you have available. Benches can be made from objects such as straw bales, tree stumps, whole logs, smooth boulders, and so on. The ground cover inside the Tree Circle can be grassy or covered with wood chips. Think about the mood and sensory experiences you want to create inside the space.

Get your trees — Does anyone on your team know a landscape person or someone who works at a plant nursery? They can help you get your trees. They will also be able to tell you the best way to plant and maintain the trees. Ask for discounts or free delivery (send a thank you note afterwards!).

Plant your trees — Planting the tree circle can probably happen on a week-end afternoon with a small team of workers armed with shovels and smiles. Pick a day on the calendar, invite anybody who wants to help, arrange to have the trees delivered, and you are on your way! (Remember to provide snacks and drinks for volunteers.) With more flour on the ground, mark out where each tree should go and start your volunteers digging! Follow the nursery person's directions on how deep the trees should be planted and be sure to clip off any low 'poking' branches. When all the trees are in the ground be sure to have everybody sit inside for a picture!

Install extras — Bring in your ground cover material and benches. Add things like wind chimes, birdhouses, or

birdfeeders for added fun and discovery.

The trees in your tree circle are living beings that grow and change over time. Like children, they need love and care. With the right gentle attention, your tree circle will mature into a beautiful natural space for your children.

What a great place to play!

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Sunflower Playscape Power: Outdoor Design

by Rusty Keeler

Ahh. Spring into Summer: the height of the outdoor playscape season! It's the time of new life, new green, and new opportunities for outdoor explorations for your children. For you it's a time to take a fresh look at your outdoor space.

Like so many early childhood professionals today, you may be interested in transforming your playground into an "environmental playscape." Now is the perfect time to add natural elements to your playscape, because it's one of the best times of the year to add plants! Trees can provide shade, vegetables can provide food, and flowers can add color and fragrance.

One of my favorite plants to have on the playscape are sunflowers. They come in many shapes, sizes, and colors; they are easy to grow, and go through an amazing change of scale in one season. The best part about them: you can grow them with your children. The whole process is an opportunity for children to learn about the natural world and the process of life. You may be the first person ever to show children the magic of seeds growing into plants. Your end result may be a flowerpot full of sunflowers, or a whole row of sunflowers planted in the ground. You may even want to take it a step further and plant them in a square or circle to create a living "Sunflower Hut" that children can actually play in. Fun!

Regardless of how you plant the sunflowers, be sure to bring the children into the process—from seeds to seedling to towering flower power! Here's one way you could do it:

What's a seed? Every plant starts with a seed, so your sunflower project should start with seeds, too. You may want to introduce the idea of seeds to children in your classroom, perhaps at circle time. What does a seed do? Where does a seed come from? What does a seed need to live, sprout, and grow? Bring in different types of seeds for children to look at and touch. You could take it a step further and serve sunflower seeds at snack time. Now there's a multi-sensory seed learning experience!

Plant some seeds. After children hear about what seeds do it's time for them to experience it first hand. You may want to start with dirt, seeds, and water in your sensory table for children to pretend and practice planting. Then it's time for the real thing. Set up an activity where children plant sunflower seeds (and other seeds, too) in biodegradable cups in your classroom. Children get to touch dirt and push the seed down below. Find a sunny windowsill to set them on when you're done. Following the suggested watering directions, allow the children to water the seeds as needed. Next step: Wait . . .

Sprout! After a few days or maybe a week, the seed in the cup will do a very special thing: it will sprout up and burst out of the ground. Whoopee! Keep watering and watching.

Seedling. With careful watering and good sunlight, the sprout begins to change into a small seedling plant. This is exciting—new life growing before your very eyes! What do your children have to say about it?

Prepare the outdoor soil. Now is the time to take the project outside and prepare the soil for the little plants. You may have a large vacant spot on your playscape or you may only have room for a few flowerpots. Either way is fine. Bring out shovels and wheelbarrows and set up an activity where everyone pitches in to prepare the earth for the

new little plants. Turn the soil over, add compost, and get it ready!

Plant it! When the seedlings are big enough, it's time to transplant them into your prepared garden area or flowerpot. (Now is a good time to invite parents with green thumbs to come in and help.) With shovels, diggers, and watering cans in hand, have the children carefully plant the seedlings and give them a drink. Plant additional seeds and watch them grow next to your seedlings. Which ones grow faster? Which plant is which? Only time will tell. At first children will tower over these small plants and seedlings. They must be mindful and protective of the little plantings. But as time goes by, a surprising shift in scale will occur.

Playing in Sunflowers! Almost like magic, the plants will grow up, up, up, and begin to tower over the children. What fun! Your sunflower hut may have a log or two inside for sitting. Maybe you've planted them to form a tunnel for children to run through. Sit back and enjoy the plants at their greenest and sunniest.

Natural bird feeders! What are those tiny things on the face of the sunflower? Seeds! Sunflower seeds grow in a fantastic spiraling whirl and plump up as the plants grow. When the time is right, you may want to harvest the seeds and try them for a snack. Or you can watch the next phase of the plants' life cycle: feeding birds. By leaving the tall flowers in place, you not only keep your towers for play but they also become a natural bird feeder for children to observe.

So go ahead. Have fun. Team up with your children and their parents. Roll up your sleeves and dig in the dirt. Nurture the plants as they grow. Then take a moment to enjoy and remember the true fruits of your labor: the project and experience you shared with your children. It all begins with planting a seed.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Winter Playscape Dreaming

by Rusty Keeler

Go out and play

Winter, like all seasons, adds a new sense of mystery and discovery to the world of young children. We all feel the excitement of the first snowy day and share a child's sense of wonder when new layers of white transform our environments. Winter is the time when children can study snowflakes, find icicles, or observe the birds that share their yards. Outdoor playscapes, designed with plants and rolling topography, magically transform themselves each season and offer enticing things to do all year long. Your playscape can, too. All it takes is some creative dreaming and planning.

Seasonal playscapes

When we build natural playscapes for children out of landscape and sculpture, we have the opportunity to design in a multitude of seasonal play experiences. With help from volunteers, folks just like you are building play environments that are more like your grandmother's backyard and less like a "playground." These "natural playscapes" are built of earth, herbs, trees, pathways, flowers, windchimes, sand, water, and more. As children play and flow through your outdoor space, they are discovering the wonders of life in each season. You can purposefully shape your yard to help shape your children's experience of the outdoors and the earth.

Think about the seasons in your area and what they look and feel like. Now think about creating opportunities for children's play that celebrate those seasonal changes. Hills that children roll down in summer can be used to sled down in winter. Planted logs or stepping stone paths can lead children here and there in different weather conditions. Covered areas or roofed playhouses provide shelter on drizzly days. Shrubs can be planted together in groups to create fun gathering nooks.

If planted strategically shrubs can help block cold winds in winter or act as living snow fences that collaborate with the wind to form swirling drifts. I can picture you now: bundled up with a class gathering in the middle of a ring of soft evergreen trees—cozy, protected, enjoying a nice pine smell, too!

Dreaming and planning

Do you have ideas for a natural playscape you'd like to build in the spring? Winter is the perfect time to start planning! Here are five ideas to help you plan your playscape project:

■ **Form a playscape committee of interested folks to help you.** You know you have creative staff and parents. Put the word out and see what their ideas are! A fun, energetic team can make dreams a reality.

■ **Dream the playscape.** Think about adding rolling hills, places to ride tricycles, storage areas, sand and water construction zones, forests of small trees, a gathering boulder, dramatic play houses, quiet hangout spots, and wide open multi-use areas.

■ **Make a "Master Plan" map of your area.** Measure your space and draw it on paper with existing landmarks and features. Now change it into the playscape of your dreams. Use crayons, markers, pens or pencils, and sketch out your ideas. Color the playscape with sensory interest and seasonal surprises.

■ **Make a "Wish List" of donated materials and volunteer labor for your project and circulate it.** Your "material wish list" may include items such as topsoil, trees, lumber, boulders, and birdhouses. Your "labor wish list" may ask for help from landscapers, gardeners, masons, carpenters, or cooks.

■ **Build your natural playscape with volunteers.** Based on the size of your project, schedule a weekend workday or two and invite folks to come and spend the day improving the children's environment. If you provide child care and meals, they will come! A volunteer building project not only creates a beautiful space for children, but builds community friendships as well.

'Tis the season

So whether you're enjoying the break from the hot sun or wishing with chattering teeth you lived on a tropical island, winter is both a time to bravely explore the outdoors with children and a time to plan improvements to your outdoor environment. Create a natural playscape for your children, and you'll be amazed at the opportunities for play and discovery all seasons of the year.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Playscape Art

by Rusty Keeler

In past articles I've talked about building imaginative outdoor play environments with the help of local community volunteers. These folks can help you imagine, plan, and build the playscape of your dreams. During construction they can help you plant trees, flowers, and willow huts, build playhouses and shade trellises, and move boulders or giant logs into place. But that is just the beginning of your playscape fun. There is another group of people who can add a unique layer of whimsy, surprise, and wonder to your playscape. Who am I talking about? Artists! There could be artists in your neighborhood right now who would love to join your playscape beautification project. You never know who they might be. A parent. A grandparent. A neighbor. You?

On every playscape project that I work on I look for artists in the community who may be persuaded to help out the project. It is not only great for young children to have a yard filled with multi-sensory, climbable, textural, inviting sculpture and murals for their play adventures, but it is inspiring for children to see creative adults sharing their playful talents in beautiful ways. Imagine children watching a blacksmith hammer out a funny figure or face to be mounted on their fence. Or helping a painter create a dazzling mural on the side of the building. Or watching a wood carver add his clever touches to their beloved playhouse.

These adults are making art—just like the children do.

Artistic additions give your playscape pizzazz and add a touch of magic to the yard. Funny faces mounted on trees, animal sculptures poking out of bushes, or whirlygigs in the garden all make your space a reflection of your and your children's fun-loving ways. Best of all, these artistic additions can happen anytime. You don't need a new project to add art. You can do it now! How about some clay tiles that can become a mosaic mural, or even simply be wired to a chainlink fence? (Think chain-link camouflage.) Are there people in your community who work with metal and can make wind chimes? Or are there artists who work with concrete to sculpt the landscape into fun shapes or animals? Another popular art medium these days is cob (a combination of clay, straw, and sand that you mix with your feet) to create sculpture and structures. People all over are enjoying working with cob, and children can easily join in the messy fun. So go ahead. Add some art. Add some color. Add some silliness!

The possibilities are endless . . .

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Handmade Tile Mosaics

by Rusty Keeler

Just like your classroom, children's outdoor environments should be filled with artistic creations that add sparkle and imagination to the space. One of my favorite ways to add art to the outdoors is by installing a mosaic mural of child-made tiles! The process of making the tiles is a blast; each tile is a charming work of art in itself, and the final mosaic mural of the tiles becomes a permanent work of beauty. My wife, artist Annemarie Zwack, has years of experience working with children and teachers to make clay tile mosaics and has helped me lay out the basic steps to a mosaic project. Here they are:

Planning

Do you have a blank brick or concrete wall in your outdoor space? If you do, it is the perfect place to install mosaics! Here are some things to consider as you begin your project:

- Use High Fire clay for outdoor projects. It is stronger and more durable than Low Fire clay—especially for climates with freezing winters.
- Plan your project so you can install the tiles during mild weather. A couple days in a row where the days don't get much hotter than 75°F and the nights don't drop below 45°F are ideal.
- Plan a theme or design of your final mosaic mural. Colors and shapes of the children's tiles can be made to fit in with your design ideas.

Making the tiles

This is the fun, messy part of the project where children play with clay to make their tiles. Show children pictures of mosaics and tiles from books to get their imaginations going; then set up a station for them to make their own tiles. Remember, tiles can be any shape and theme but should be as two-dimensional as possible so they will be able to stick to the surface of the wall.

- Work with small groups of 4 to 8 children at a time.
- Cover the table with either fabric or plastic so that the work can easily be peeled off of the work surface. (Paper tends to stick to the wet clay.)
- Set out water and an array of age appropriate "tools" such as popsicle sticks, plastic combs, seashells, pine cones, lace, and other textured objects.
- Remember: small, unsupported appendages tend to break; very thin clay is more prone to break; and air pockets are to be avoided.
- Very heavy pieces can be quite a challenge to mount to a vertical surface.
- If you want to attach two pieces of clay to each other, it is helpful to score each piece and use a little bit of water on the connection point.
- Tiles need to dry slowly on a flat surface. Tiles that dry too quickly can

crack. (Avoid direct sunshine when picking a drying spot.) Tiles that dry warped will always be warped and more difficult to stick to a flat surface.

Glazing the tiles

After a couple of weeks, when the tiles have dried, the next step is to paint them with glaze. Glazes are chemical mixtures that, when fired, vitrify or turn (partially) to glass. Because typical glazes change color from their liquid to fired state, it is always fun and surprising to see how they turn out when fired.

■ Watch out for toxic glazes! It's important to find glazes that say they are food safe. This means that once they are fired you could eat food off their surface. It doesn't mean that a lick of the unfired glaze would be okay.

■ It is wise to let older children wearing gloves or adults do the glazing. When explained ahead of time, this collaboration is welcome and a nice community-building activity.

■ One common type of glaze is "Wonderglaze"—a kind of hybrid between underglaze and glaze that doesn't run and still comes out shiny with a couple coats, called "Stroke and Coat" by Mayco.

Firing the tiles

After the glazes have dried, it is time to have them "fired" or cooked to finish them off. You will need to find a person or organization with a kiln to do the firing. Local artists or schools typically have kilns and will usually be happy to accommodate your children's work. Remember to tell them that you need the tiles High Fired for outdoor durability.

Mosaic-ing

Once the glazed tiles have been fired, you are ready to mosaic your brick or concrete wall to form your final design! This stage is mostly for adult volunteers using mortar and grout to adhere the tiles to the wall.

■ Draw with chalk on the wall surface so that you have a general idea where the tiles will go.

■ A big drop cloth under this area will save clean up time later.

■ Mortaring is the first step in adhering the tiles to a surface. (We use Quick-Crete; follow the directions on the package for adding the right amount of water to the right amount of powder.) Start out with a small area. Trowel mortar onto an area about one foot square. Stick the tiles in the wet mortar, then trowel mortar on your next spot. You don't need to embed the tiles very deeply, just enough to hold. Try to get your tiles to be an eighth to a quarter of an inch away from each other. You want them close but not touching. Try to limit the amount of mortar that oozes up the side of a tile when it is pushed in. Clear it away while the mortar is wet. (It will save trying to scrape it out when you need to get grout in that space.)

■ You may also want to embellish with glass blobs from a craft store, pieces of mirror, river rocks, and commercially made tiles or ceramics (High Fire).

Grouting

When the mortar is set (after a couple of days) you are ready to grout. Grouting is the final stage of the installation and is used to fill the gaps between your tiles and keep water from getting behind them. This is a good task for a handful of adult volunteers. Many hands make this process faster and more fun, and it is very satisfying to see the final mosaic emerge from under your cleaning sponge!

■ Use the kind of grout with sand in it. It is stronger and better suited for some of those wider gaps between irregularly shaped tiles.

■ Drop cloths are also very helpful at this phase!

■ You'll also need rubber gloves, palette knives for applying the grout, sponges, and buckets of water to clean off your sponges as you work.

■ Once you mix the grout and let it set up, smear it into all the cracks between the tiles. The grout will likely get on the tile faces, too. That is okay; it will all be cleaned off, but the thicker it is on the tile face, the more you'll have to scrub off later, so try to be mindful as you apply it.

Are you ready to roll up your sleeves and make some tiles and do some

mosaicing? You can try it by yourself or look into local arts organizations to find a ceramic artist who can assist you. Also, there are many arts-in-schools and arts-in-community grants available to help fund your project. What a great way to beautify your outdoor space—and you can add more to it every year!

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 2.5. True/False

- ___ 1. Rusty Keeler recommends compiling a list of the talents and skills available in your community and a list of materials and plantings available in your community as a first step in designing a playscape.
- ___ 2. Background sounds create an overall mood in outdoor classrooms.
- ___ 3. People who have engaged in a community building project note that involving a large number of people surrounds the project with energy that contributes to its success.
- ___ 4. Advanced preparation is essential to the success of a community-built project.
- ___ 5. Activities in nature, such as digging in the sand, can calm an anxious or stressed child.
- ___ 6. Participants in community-built projects report that the process built friendships as well as a playscape.
- ___ 7. In planning a living willow hut, think first of how many children you want to use it at a time.
- ___ 8. The best time to plant willow shoots for a living willow hut is in winter when the plant is dormant.
- ___ 9. Living willow huts can be designed in a variety of shapes to suit the needs of any particular group.

(1. T, 2. T, 3. T, 4. T, 5. T, 6. T,
7. T, 8. T, 9. T)

Making the Most of Outdoor Play: A Bounty of Ideas to Motivate the Hesitant Teacher

by Karen Stephens

How can you double the space of your classroom without remodeling your facility? By opening your curriculum to the great outdoors! Ingenious and motivated teachers use the outdoor play yard DAILY to extend and enrich children's learning. Open air activities do more than educate, they rejuvenate the spirit—verified by children's frequent squeals of delight and exuberance. Mental health as well as physical health is enhanced from outdoor play. And nothing sparks children's intellect and curiosity as much as the good earth herself! Your outdoor play area offers a boundless array of hands-on learning activities for overall development.

Admittedly, some early childhood teachers dread outdoor play. They become bored or find children become too unruly. So teachers keep students cooped up inside, believing this will keep the children more manageable and "under control." Quite the contrary happens! Children with pent-up energy are LESS able to comply with indoor expectations which emphasize quiet, sedentary, and restrained behavior. Children allowed to be enthusiastic and boisterous — meaning child-like — through outdoor play are more relaxed and cooperative for classroom activities. When you tune into outdoor experiences, you do yourself AND the children a favor.

The activities that follow encourage you to make the most of outdoor play. Some of the experiences require very little teacher planning, others require modest preparation. Regardless, they all utilize typical outdoor resources—a group of children, basic play equipment, Mother Earth, and changeable weather.

Sunny Day Shadow Play

1. Ask the children to find their shadows on a wall or sidewalk. Play "Shadow Simon Says." Can they make their shadows wide, thin, short, tall? Can shadow hands touch another shadow's elbow?
2. Play shadow dancing. When the sun is low in the sky, hang a white bed sheet from a rope tied between two poles. Place an "audience" of children on one side of the sheet. While playing lively music, select four to six children to dance one at a time behind the sheet. Can the audience guess who is performing? How?
3. Create shadow statues. Hang a sheet as in the previous activity. Have groups of three to five children stand behind the sheet to create group statues. Give the children's imagination free reign as they position themselves as a team into one statue. How long can the shadow statue hold together? (Shadow statues can also be created on walls.)
4. Divide children into pairs while standing on concrete. One child strikes a "pose" while the partner traces around the shadow's outline with a piece of chalk. Children reverse roles and then color in their shadows with colored chalk.
5. Play shadow tag. Instead of tagging bodies, the children tag shadows in this run and chase game. Or play shadow freeze. Play lively music and then stop the record. Children must "freeze" their shadows when the music stops and then resume dancing when the music plays again. How long can they hold their shadows still?

Warm Weather Play Days

1. Play tag with any of the following filled with water: squirt bottles, spray bottles, meat basters, water balloons. **Discard any broken balloon pieces immediately to prevent choking.**
2. Provide buckets of water, lots of LARGE house paint brushes, and let the children paint the walls or sidewalk. Where has the water gone when it has "dried"?

3. Set up a pretend "car wash" for wagons and big wheels! A hose, buckets, sponges, and soap suds set the stage for fun!

4. Do spring cleaning in the summer! Bring out classroom chairs and let the children scrub away. Provide a hose, buckets of warm, SOAPY water, scrub brushes, sponges, and rags. Then let the children clean to their heart's content. (The sight of preschool children laboring away on all those chairs does bring to mind "Orphan Annie," but the sensory experience of the soap and water makes it great fun for children. It is one of our children's favorite summer activities!)

5. Create a "slip and slide." Lay a LONG, narrow plastic sheet on the ground. Place a hose with running water at the top. Children (in bathing suits) get a running head start on the grass and then slide down the long sheet as if coming into home base. (A video camera is great to have so the unforgettable facial expressions can be shared with parents!)

Snowy Day Activities

1. Build a snow animal. "Paint" it using spray bottles filled with dark, colored water. (Our kids made a whale!)
2. Search for animal tracks in the snow. Match them with pictures of the animals.
3. Throw snowballs at a TARGET on the fence/wall.
4. Fill the water table with snow and build a "snow city." Provide Lego people for snow city dramatic play. (Remind children to leave mittens on.)
5. After a fresh fallen snow, ask your aide to make winding track paths across the yard and then choose a hiding place. Can the children find the aide by "tracking" him/her? Variation: Hide a surprise at the end of the trail, i.e. a new toy or treat.

Rainy Day Fun

1. Rain paint! In a GENTLE rain, place mural paper on the ground. (Have children dressed in slickers, hats, and boots.) Provide spoons and cups of

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses. This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

DRY powdered tempera for each child. Children sprinkle dry paint on paper and the rain does the rest!

2. Dressed in rain gear, go outside and find animal tracks in muddy areas. Can the children guess who the tracks belong to? Where do the tracks lead? Why do earthworms come to the surface after a rain? What do their tracks look like?

3. Stand very still and quiet under umbrellas. After listening for a while, ask children what the raindrops sound like on the umbrellas. Have them hold one hand out into the rain. What does the rain feel like? Have them breathe in deeply. Is there a different smell? Later write down their descriptions of the sound, feel, and smell of the rain.

4. Go puddle jumping! Find as many puddles as you can. Count them; measure them. Can you find big ones, small ones, deep ones, shallow ones? Look into the puddles. What's in the reflection? What's in the puddle? Toss a pebble into the puddle. What happens? Can you find butterflies around the puddles? What color are they? What are they doing? Can the children step over the puddles, hop over, jump over, tip toe around? Time how long it takes the puddles to evaporate.

5. After a nice rain, walk barefoot through the grass. How does it feel? With wet feet have the children walk on dry tempera paint sprinkled on newspaper sheets. Then they create paint footprints by walking on the sidewalk.

Roaring, Whistling, Windy Day Play

1. Make recycled windchimes. Set out "junk" items on the picnic table so children can string and hang them from a clothes hanger.

2. Bring out streamers! Colorful nylon streamers are the best, but crepe paper streamers work, too. Let the children run with abandon. Tired of running? Find a small hill, have the children lie down on their sides and then roll themselves up in paper streamers all the way down. At the bottom, friends unroll each other!

3. In a protected area, let the children wash the doll clothes in a water table or tubs. String up a child-height clothesline. Provide clothespins so children can hang the clothes to dry. How long does it take? What happened to the water in the clothes?

4. Hang whirli-gigs from trees or roof overhangs. Sit with the children and enjoy their dance. Can the children describe how they look? Or perhaps you'd rather make pinwheels to stick up in the ground. Can the children imitate the pinwheel's movement? (Toppling on top of each other is half the fun!)

5. Serenade the wind. Windy days can be noisy days as the roar deafens us. What a great day to bring out the musical instruments! No instruments on hand? Provide dowel rods or sticks and let the children clap them together. Can they make music by tapping the garbage can? The sand toy buckets? What music is made by running the stick along the fence or tapping a metal pole or the jungle gym?

Open Air Art

1. In *The Outdoor Play and Learning Book*, Karen Miller suggests weavings on wooden fences. Those of us with chain link fencing can create weavings, too. Collect lots of "weavable" scraps from your art center: crepe paper streamers, fabric strips (all textures), burlap, colorful yarn, twine, string, bulletin board cardboard trim, newspaper strips, aluminum foil, Christmas tree garland, tinsel, etc. Show the children how to begin their weaving and let their inventive instincts take over.

2. Hang six foot strips of mural paper on a wall or your fence. There are many different ways to paint the mural! One day, provide spray bottles with colored water in them. Another day, provide squirt bottles (empty dish detergent bottles) filled with tempera paint. Meat basters can also be used to squirt paint.

For the more adventurous, provide four buckets of different colored, WASHABLE tempera paint. Provide one sponge per bucket. Children absorb paint into the sponge and then hurl it at the mural paper. This leaves a beautiful

EXPLOSION of color. Great for representing fireworks displays! (Draw or tape a line for children to stand behind when tossing the sponges—otherwise a child could get hit on the back with a sponge. Yuk!)

3. Create a bubble print mural! Place a six foot length of mural paper on concrete. Fill small plastic cups with homemade bubble solution that has tempera paint or food coloring added. (Dawn™ detergent and water makes the best solution for us.) Set cups in center of mural paper. Provide one cup and straw per child, and let the bubbling begin! Overflowing cascades of bubbles burst, leaving lovely prints of overlapping circles.

4. On a hot, sweltering day, let the children don their swimsuits for "body painting." (Dish soap mixed into the paint makes wash up easier.) Arms, legs, and tummies become a kaleidoscope of color! When finished, let children wash each other off with a hose. The swirling paint creates another painting right on the sidewalk!

5. Do you have child-height windows in your classroom? Let the children paint pictures on them from the OUTSIDE. When inside, the windows resemble beautiful stained glass! The children also love to scrub windows clean once rain blends colors into a dreary gray. (Dish soap in paint helps in this activity, too.)

Parachute Play

1. Using a parachute (or large bedsheet), arrange children on all sides. Play "Ring Around the Rosie." Can the children learn to billow the parachute as they drop at the end of the song?

2. With children on all sides, have them pull the parachute taut. At different times, toss a variety of balls into the center. Can the children toss them high? Can they make them jump like popcorn? Can they make them bounce just a little? (Items to toss: ping pong balls, rubber balls, Nerf™ balls, whiffle balls, L'eggs™ eggs, yarn "pom pom" balls, plastic Easter eggs, koosh™ balls, beach balls, tennis balls, etc.)

3. Create "waves." With children on all edges, can the children make the parachute look like the wave of a calm day? A breezy day? A windy day? The tidal wave of a stormy day?

4. Play partner trade. Have the children practice lifting the parachute in unison as high as they can reach—right up to their tip toes. Then have them bring it down in unison, all the way to the ground. Once they have this skill mastered, begin the trade game. When the parachute is at its highest, call out two children's names. The two partners then have to run and trade places before the parachute touches the ground. What if one child gets caught in the middle? No worry, just let them try, try again until success is experienced.

5. Practice movement skills. While holding onto the parachute with one hand, can the children gallop in a circle? Can they tip toe, slide, hop, take giant steps, take baby steps, walk backwards? Can they hold onto the chute with one hand and touch their free hand to their head, shoulder, hip, knee? The more challenging you make it, the sillier it gets!

Wheel Toy Play

1. Use large plastic blocks to build a parking garage for the big wheels. You'll need a parking attendant to collect parking fees!

2. With large blocks, create a maze in the trike area. Children then maneuver the maze riding wheel toys. Is it harder on a trike than a big wheel? Is it easier pulling the wagon through the maze? Does it take special skill to move a tandem big wheel along the maze? (Answer: YES!) Vary the maze to keep interest.

3. Act out dramatic play themes using wheel toys: mechanic's shop, Indianapolis 500, first aid ambulance, police, mail delivery, taxi service, towing service.

4. With two teams, set up a trike relay. Place a team at each end of your trike area. One child drives the trike over to a team member who then drives the trike back again. Use a stop watch to time relays. No need to tally "winners and losers."

ers." Three's to five's just enjoy rushing back and forth as they learn about cooperation and teamwork. Variation: Have wagon pulling relays.

5. Hold a parade! Choose any celebration you like. Our children have a "victory" parade every year after they campaign, vote for, and elect their class mascot. (For those with inquiring minds: whales and dolphins have been the running favorites.) Whatever the occasion, let children deck their wheel toys out with posters, streamers, flags, banners, and noise makers. Parade in your play area or on a VERY SAFE neighborhood sidewalk.

Revisiting Sand Play

1. Create designs in the sand using CLEAN discarded hair combs, sticks, small rakes, or commercially made sand combs.

2. Build volcanoes with the children. Once the children build a mound, insert a cup into the top. Allow children to pour some vinegar and red food coloring into the cup. When children spoon in some baking soda, watch the eruption!

3. Cut off the tops of clean milk cartons ranging from half pint to gallon sizes. Let the children experiment making molds with WET sand. Can they seriate them from largest to smallest?

4. Using the cartons from the previous activity, have the children pour DRY sand from one container to the next. How many pints of sand does it take to fill the quart or gallon carton? Provide a balance scale for comparing weights.

5. Collect plastic plants and dinosaur toys so children can re-create the world before humans arrived. Aluminum pie tins can represent bodies of water.

One More Favorite

In a small group, provide each child with a magnifying glass. Dig up a square foot section of grass in the play yard. Dig down as deep as you would like. What can the children find? What does the soil look like up close? How many tiny creatures are living in that small patch of earth? If you're lucky, you could find an artifact from the past!

You have just read a bounty of ideas for making outdoor play more fun and productive. Now the creative work of implementing the activities is up to you. Rise to the challenge and you'll look forward to outdoor play each and every day! Bravo!

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Inviting Children Into the Fun: Providing Enough Activity Choices Outdoors

by Elizabeth Jones

Simon Nicholson's "theory of loose parts" says:

In any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kinds of variables in it.

... most environments that do not work ... do not do so because they do not meet the "loose parts" requirement. Instead, they are clean, static, and impossible to play around with. What has happened is that adults in the form of professional artists, architects, landscape architects, and planners have had all the fun playing with their own materials, concepts, and planning alternatives, and then builders have had all the fun building the environments out of real materials. And thus has all the fun and creativity been stolen; children and adults and the community have been grossly cheated. (2, p. 30)

Children, like adult designers and builders, need loose parts with which to design and build for themselves. In environments which offer the possibility of discovery and inventiveness, children's play sustains itself. In environments devoid of loose parts, children get in trouble. It isn't very difficult to change one environment to the other.

Loose Parts in Action

The public school where Mary Lou teaches kindergarten also has two preschool classes with which she shares a large asphalt play yard. Mary Lou has given a great deal of thought to the organization of her classroom, which is her own, but not to the shared outdoor space. Nor, in September, had the preschool teachers.

September

There are 33 four-year-olds outdoors with no loose parts except sand and one frisbee. The stationary equipment includes four swings and several climbers and slides. Children are climbing, sliding, swinging, waiting for turns on the swings, running, and throwing sand. Four children are playing with the frisbee. Three boys are wrestling in the sand. There is a bike path painted on the asphalt; several children are running around it. A boy discovers that the slide makes a fine loud drum, using his heels, but an adult tells him to stop.

A running child falls and skins her knee. She cries loudly. "Why is she crying?" one adult asks another. "She was *running*," is the accusing answer.

The most imaginative play in the yard—with the dramatic theme "Run Away and Hide!"—has been organized by two small boys who are hiding in the bushes, then running around the corner and along the covered walkway adjacent to the yard. They are entirely out of sight of any adult. They disappear and reappear; it is some time before they are caught at this illegal game.

Children have been outside for 25 minutes; some are asking to go in for lunch. But it isn't lunch time. "I can break down the door," says one boy hopefully. Several children waiting on the porch organize a running game until a teacher arrives to organize them into a line and take them in.

Early October

All three classes are outside, a total of at least 45 children. Teachers have brought out bikes and a hoop. Many children are waiting for turns. Complaints of "Teacher!" are frequently

heard. It's been windy, and the porch and the dirt under the trees are covered with leaves—loose parts which no one seems to have noticed.

A visitor, too frustrated to remain an observer, asks one of the teachers, whom she knows, if it would be all right to bring out a few crates and the animals from the block area. The teacher, surprised but curious, thinks about the idea and then agrees.

The visitor puts the crates on the porch, stands up several animals in a crate, and puts the remaining animals in the leaves under the trees. "What are those for?" asks a curious child. "I thought they might like to come outside in the leaves," says the visitor. "Can we play with them?" And play they do—zoo, animal fight, bury animals in the leaves, take them for a bike ride, wash them in the drinking fountain. Animal-washing is particularly absorbing for several children over a long period of time.

Enterprising children from the other preschool class go into their room and bring out their animals—and a few cars for good measure. Oh oh, the two rooms' animals are going to get mixed up, thinks the visitor. How nice, a cooperative classification activity in the making, is her second thought. She suggests the idea to the other teacher. Then she leaves, wondering what will be happening on her next visit—and whether she'll even be welcome.

Late October

The visitor returns to spend some time in the other preschool room, apparently welcome. At the end of circle time the teacher asks the children, "What would you like to bring outside?" "Animals," says one boy, and they do. They don't even have to wait in line today; when children are ready, out they go.

Outdoors, the sand table is filled with rice and lots of tools. There is also a crate full of tools which children can take to the sand around the climbers, bikes and wagons, stilts, a ball, and leaves. The preschool teacher across the way has spread a mat on the porch against the classroom wall, added two lacy pillows, a quilt, and some dolls to make a large bed, and now is sitting

comfortably on it in the sun. One girl is snuggled next to her, talking; two others are tucking dolls into bed. Again the drinking fountain gets used for washing animals; some children bring containers from the sand to fill with water. Wet sand is much more useful than dry sand. Later in the morning, brooms, dust pans, and a trash can are brought out by a teacher and used enthusiastically by children. There are lots of leaves to be swept.

This morning, with many loose parts available and with adult attentiveness to play, outdoor play goes on for an hour. Everyone loses track of the time, in fact, until a teacher notices in surprise that it's lunch time.

It really did happen this way. Even the visitor, who knew all about the theory of loose parts, was astonished at how much difference additional materials made. Teachers had thought it would be too much work to take things outside; but once children had more to do, supervising their play became both easy and fun. Play was more complex, incorporating dramatic themes as well as physical action.

Outdoor time was no longer just recess. The space now offered clearly defined play areas and encouraged purposeful movement between them. Children moved all over the yard; they carried containers from sand to water fountain and back, from rice table to water fountain and back, from sand to bed and back. They were too busy to play "Run Away and Hide." They were even too busy to pay attention to the large truck that drove right into the middle of their yard, mid-morning, and parked there to supply workmen on the school roof. The children, workmen themselves, simply detoured around the truck on their purposeful journeys.

The staff had set up an environment outdoors which permitted dramatic play and language to flourish. They permitted children to help create the environment—to bring out things they thought they would need, and to go back in for more. They permitted water play, spilling, moving materials around, combining and recombining materials, moving one's body in many

Permission is granted to print a single copy with payment of tuition to Care Courses. Credit is available only through Care Courses. This document contains the same information as your online course and is provided for your convenience.

We do not require that you read both this document and the online course.

different ways, and noise. Nobody got hurt, and "Teacher!" didn't get yelled so often. By adding loose parts, teachers transformed an environment that had not been working for children or adults into an environment that was interesting and pleasant for everyone.

Working with the Activity: Child Equation

These changes can be analyzed in terms of both **variety** and **complexity**—two useful ideas suggested by Kritchevsky and Prescott (1). Variety describes kinds of activity. In September, children could swing, climb, slide, throw a frisbee, throw sand, and run—six kinds of things to do. In early October, teachers had added bikes for riding. The visitor added crates for building and animals for dramatic play—and for burying in the leaves the wind had contributed. The children added water for washing animals. The count rose to 11 kinds of things to do, and children had much less difficulty staying interested. By late October, digging, pouring, bouncing a ball, balancing on stilts, sweeping, doll play, sleeping on the bed, and hauling had been added. With a count of 19 varieties of activity, both children and adults were so absorbed they nearly forgot lunch.

Complexity describes the extent to which an environment contains "potential for active manipulation and alteration by children" (1, p. 10). This is where loose parts come in. Loose parts can be manipulated, moved about, and used in new combinations.

The more complex an environment, the greater its potential "to keep children continuously interested. If children are expected to play in an area for any length of time, high complexity seems virtually essential." (1, p. 11)

Elaborating on this distinction, it is possible to discern three types of play units—simple, complex, and super—which vary both in their relative capacity to keep children interested and in the relative number of children they can accommodate at one time. Our basis for classifying play equipment considers its possible use based on its internal complexity.

Simple: A play unit that has one obvious use and does not have sub-parts or a juxtaposition of materials which enable a child to manipulate or improvise (examples: swings, jungle gym, rocking horse, tricycle).

Complex: A play unit with sub-parts or juxtaposition of two essentially different play materials which enable the child to manipulate or improvise (examples: sand table with digging equipment, play house with supplies). Also included in this category are single play materials and objects which encourage substantial improvisation and/or have a considerable element of unpredictability (examples: all art activities such as dough or paints; a table with books to look at; an area with animals such as a dog, guinea pigs, or ducks).

Super: A complex unit which has one or more additional play materials, i.e. three or more play materials juxtaposed (examples: sand box with play materials and water; dough table with tools; tunnel, movable climbing boards, and boxes; and large crates. (1, p. 10)

Simple, complex, and super units differ from each other both in their capacity to keep children interested and in the number of children they can accommodate at one time. Kritchevsky and Prescott

devised a method for approximating what might be called the number of play places that a room or yard actually has. To do this we assign a value of four to complex units, on the basis that complex units will generally accommodate about four children at once. Considering the unique potential of super units, we felt they were worth two complex units and so we valued them at eight. Though many simple units can be used by more than one child at a time, the fact that they are less continuously interesting than complex units led us to assign a value of one to simple units. (1, p. 13)

Using these definitions, there were only simple units in the yard in September: four swings, three climbers, two slides, one frisbee, and sand without tools.

That's 11. This count reflects some judgments which could be argued. For example, the yard is large and there's lots of sand; it extends under all the climbers and swings and beyond them. Two of the climbers have slides attached; doesn't that make them complex units? And what about the painted bike path? Children were using it to define their running; they recognized it as a play space.

A complex unit has loose parts to improvise with; all parts of the slide/climbers are firmly fixed. We've counted both climber and slide, even though they're part of one structure, since climbing and sliding are different activities. But both are simple. If we decide to count the bike path and figure there are three more spaces in all that sand, that's 15 play spaces. Fifteen play spaces for 30 children. That's guaranteed trouble, just as the typical elementary school playground at recess is guaranteed trouble. Kritchevsky and Prescott suggest an analogy with the game of musical chairs.

For the purposes of the analogy we shall assume that the objective of the game is not to eliminate participants but to provide each child with a chair each time the music stops. In a game with 20 chairs and 10 children (2.0 chairs per child), when the music stops children can easily find an extra chair without help. If there are 10 children and 15 chairs (1.5 chairs per child), some children will probably have difficulty finding an empty chair. The closer the number of chairs is to the number of children, the more likely it will be that a teacher will need to help children find the empty chairs. If there are fewer chairs than children, either some one (or more) must stand every time the music stops, or children must double up on chairs. If the teacher is in charge of the music, shifting from chair to chair will take place for all children at once and be much as described above. However, if the teacher wants the children to listen to their own "inner music," further difficulties are introduced. When the number of chairs is close to one per

child, and a child wants to change chairs, choice will be severely limited, and the teacher will probably need to help. If several children want to change chairs in close succession, the demands on the teacher and the limitations on the children will be extreme. (1, pp. 13–15)

Fifteen play spaces for 30 children comes out to half a space per child; no wonder "Teacher!" was in constant demand to settle territorial disputes. In an environment with fewer choices than children, the only other options are waiting for turns, running, and inventing "Run Away and Hide." No teacher effort had been expended in provisioning the environment. The effort went, instead, into trying to keep it safe. It wasn't safe in September. **Any living creature is at risk in an environment with too much population and too few resources.**

In October the teachers brought eight bikes out of the shed, increasing the number of play spaces to about 23. But all three classes were outside, with 45 children—still only half a space per child. The visitor added only a few small items; but because they were loose parts, complexity in the yard was substantially increased. Crates—there were only three—are a simple unit; but crates with animals are complex, because both can be moved around. Animals are a simple unit, but animals with leaves are complex. If animals are taken for a bike ride, there's another complex unit. If animals are washed in a drinking fountain, where there are faucets to turn on and off, there's another complex unit. Since each complex unit is given four points in Kritchevsky and Prescott's scheme, adding four complex units to the 23 simple units already present raised the total number of play spaces to 39. That's not enough for 45 children, but the additions made an immediate difference in the quality of some children's play.

It is important that the visitor's improvisation gave children permission to improvise too. Washing the animals and taking them for bike rides were their ideas. So were bringing out more animals from the other room, and bringing

out some little cars (which didn't get counted above, and would raise the total play spaces to at least 43—better). In proposing the theory of loose parts, Nicholson's concern was that children are cheated of their creativity when adults have had all the fun playing. As this environment was functioning, neither children nor teachers were exercising any creativity with materials. The visitor tried just a little. "Can we play too?" the children asked; and, since that was the point, they took over the play and complicated it some more.

By late October, both children and teachers had become creative. The outcome was at least three super units: the rice table with scooping and pouring tools, to which children added little cars and animals; tools for the sand areas, to which children added water; and the bed, with pillows, covers, and dolls, to which children brought containers of sand to feed the dolls and the teacher. The drinking fountain served as a play space as well as a water source; along the way it probably became a super unit, as children used it with both containers and animals, and carried water across the yard. Sweeping leaves was a complex activity. Children combined wagons with bikes (in a long cooperative play sequence they tried to use a bike to pull a wagon which wasn't tied on), a complex activity which later became super when containers of sand were loaded into the wagon. All this super complexity added something like 50 play spaces, for a total of over 90 and a ratio of 3:1 for 30 children. It's no wonder lunch time had lost its urgency!

References

- (1) Kritchevsky, S., E. Prescott, and L. Walling. *Planning Environments for Young Children: Physical Space*. Washington, DC: NAEYC, 1969.
- (2) Nicholson, S. "How Not to Cheat Children," *The Theory of Loose Parts*, in G. Coates (editor), *Alternate Learning Environments*. Stroudsburg, PA: Dowden, Hutchinson, and Ross, 1974.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Play and the Outdoors: What's New Under the Sun

by Susan J. Oliver and
Edgar Klugman

A generation "at two" with the outdoors?

Are today's ever more plugged-in young children developing "nature-deficit disorder"? (4). Will they grow up associating bugs with computers rather than the great outdoors? Do they prefer to play indoors because, in the words of one child, "that's where all the electrical outlets are" (4)?

Whatever the reality, many parents and teachers feel instinctively that childhood today is very different from what it was for previous generations, and a sizable part of the difference has something to do with the changing amount of outdoor play time. Where are the lazy afternoons of exploration in the backyard or local park, lifting up rocks and watching ants race out of sight? What happened to long days in the summer sun, making up games and setting off on outdoor adventures with neighborhood playmates? Today's children, noted a recent *New York Times* article, increasingly are "at two" with nature. "The days of the free-range childhood seem to be over," noted *The Times* (8).

Changes in outdoor playtime for today's kids

While a bike ride around almost any neighborhood on a sunny Sunday afternoon may leave you asking, "Where are the kids?" there are few studies to confirm that children are getting less play time than a generation ago, says Dorothy Justus Sluss, associate professor of Early Childhood Education at Clemson University. "Because we did not document the amount of time children spent in various kinds of play fifty years ago, it's hard to establish a reliable comparison with today's kids," Sluss explains.

Some researchers, however, are making attempts to understand changes we're seeing by asking parents to think

back to their childhoods and report their perceptions about what's different for their own kids. In a nationwide study of a geographically representative sample of over 800 mothers of children aged three to twelve, Professor Rhonda Clements of Manhattanville College and immediate past president of the American Association for the Child's Right to Play found that 70% of mothers reported they played outside every day when they were their child's age, compared to 31% of their children who have everyday outdoor opportunities (2).

Moreover, a recent study at the University of Michigan looked at the time-use differences between children in the early 1980s and the late 1990s and found that kids aged three to five have one-third less free play time (indoor and outdoor) than a generation ago and nearly triple the amount of time in organized sports (5, 6).

According to an April 2004 study of 300 parents of children under five years old conducted by Youth Pulse, a marketing services company that monitors youth behavior, only 39% of children aged two to five "run around or play outdoors" every day or more often. For children under age two, only 19% have daily outdoor playtime (16).

Helping young children experience "the natural classroom"

As an early childhood educator, you are in a powerful and unique position to make sure that children's exposure to the outdoors and its ever-changing wonders is woven into the core of your curriculum—and the fabric of their day. The many sights, sounds, smells, and textures of the outdoors make it a natural classroom, and one that fits the exuberant gross motor, construction play, and symbolic play instincts of preschoolers. In fact, research indicates that preschoolers engage in richer symbolic play outdoors than indoors (10) thanks to the relatively greater availability of low-realistic, low-structured, natural materials, spaciousness, and teacher involvement" (3) found outdoors compared with indoors.

Other advantages you'll find when you step outside with your class include greater opportunities for children to engage in: 1) free play, because adults tend to control indoor play more closely than outdoor play; 2) different types of social arrangements, because the nature of outdoor games and exploration offer children chances to break away from their regular alliances; 3) play that contributes to their movement skills and physical fitness (11).

Best practices for your outdoor time with children

Whether you let children simply enjoy free play or offer teacher-directed activities, teacher educators and consultants on outdoor play Barbara Crossley and Beverlie Dietze suggest these six areas of best practice for outdoor play:

■ **Attitude:** Educators should have a positive attitude about outdoor playtime, be ready and willing to work with the weather, children's interests, gender differences, and more—and should create a play climate that is flexible and supportive.

■ **Health and safety:** Obviously, the physical environment needs to be safe and adequately supervised, with children appropriately dressed for the day's conditions.

■ **Program planning:** Outdoor play time should be structured so children have sufficient time and facilitation to engage in complex, integrated, in-depth activities or explorations; can exercise their sense of curiosity and creativity; and can participate in a range of developmentally appropriate experiences.

■ **The environment:** Materials and equipment should be open-ended, and the play space should offer variety that can accommodate individual and group play, dramatic play, spontaneous play, gross motor activity, exploration of nature, and more.

■ **Curriculum support:** Materials are sufficient for the number of children, support different types of play, and include some that are interchangeable between indoors and outdoors.

■ **Role of facilitator:** Adults understand the developmental needs of individual children and help children integrate knowledge from various settings and developmental domains. Adults help children accommodate their behavior to the outdoor setting rather than using removal from the setting as punishment.

Nurture with nature: Tips for teachers on making the most of outdoor play

The outdoors is an educational tableau that offers endless opportunities for creative early childhood educators. Here are a handful of ideas for maximizing outdoor time and learning experiences. You'll have many more.

■ **Don't let the outdoors keep you indoors.** As our colleagues in Scandinavia often say, there is no such thing as bad weather, only bad clothes. If the weather keeps you indoors too often, your children may miss important experiential learning about rain or wind or snow. Work with their parents to provide outdoor clothing that offers the option of going outdoors nearly every day.

■ **Make friends with three square feet of ... something ... outdoors.** Have you ever stepped outdoors and focused on a small area—say, three square feet—and spent some time just watching and exploring? What's happening on the surface? What lives there? What's growing there and what eats it or sleeps in it or plays in it? What color is it and does it always stay that color? Does it look different at different times of day? What happens when the weather changes or seasons come and go? Does your adopted spot change?

Whether your class has grassy areas to enjoy or piles of dirt or plain cement sidewalks, the kinds of questions children can answer (and ask!) are endless. Encourage the development of their sensory and deductive skills. Pick small areas to monitor and explore for a fun and educational long-term project—and one easily connected with art, science, and literacy components in your curriculum.

■ ***Be responsive to changing outdoor conditions.*** So you weren't expecting to talk about rainbows today? If one shows up, are you prepared to make it a magical moment—along with a science lesson? In keeping with your philosophy of a child-influenced curriculum, have books about natural phenomena, science supplies, and art materials ready for those times when Mother Nature serves up a not-to-be-ignored lesson that engages the imagination of your children ... even if it's as mundane as a snake slithering across the playground or a puffy cloud that looks like a teddy bear.

■ ***Move indoor activities outside.*** If the weather looks cooperative and the children are settled enough in the classroom for a change of routine, why not take some of your indoor day outside for a change? Are there activity centers you generally keep indoors? If you are in a climate that changes with the seasons, consider moving some of your indoor play centers and materials outdoors at appropriate times of the year.

■ ***Bring the outdoors back inside.*** What did you see outdoors today? Bulbs half nibbled away? By whom? Seedlings growing through a crack in the sidewalk? How do they do that? A bunny running across the grass? Where was it going? Can you tell a story about it? Draw a picture? Act it out?

What's happening in outdoor play that impacts early childhood educators?

As early childhood educators, what trends can we expect to see in outdoor play? What can we do to make outdoor play more meaningful and useful to healthy child development? Here are a few directions that we expect outdoor play will take—and ways that early childhood educators can respond:

■ ***Assessment will follow you outdoors.*** Teachers have long been encouraged to take advantage of the enhanced opportunities outdoor play offers for assessment of each child's development. (You'll find some good strategies and tools in *Outdoor Play Every Day* by Karyn Wellhousen, 13.) In our culture of measurement and ac-

countability for kids and teachers alike, however, we can expect that each aspect of the curriculum will be evaluated in some way. Because outdoor play can be an easy target for administrators and others who are looking for more "instructional" time in a child's day, it's a good idea to carefully document the ways that outdoor time is promoting the development of kids in your class because they are outdoors.

■ ***You need to take an active role in helping parents understand outdoor play.*** Parents, of course, harbor many fears for the safety of their children and concerns about the quality of their education. As an early childhood educator, you can expect to play an increasingly central role in assuring parents that their children are reasonably safe outdoors (from strangers, bugs, sunshine, bullying ... you name it) and in communicating to them the importance of outdoor playtime.

Today's parents hear many media-based messages that heighten their concerns about safety—even though statistics don't warrant the concern—and that promote a highly academic approach to early childhood education.

You can help parents understand how outdoor play, especially free play, is a valuable part of their children's day. If parents are skeptical about play, sell the idea by sharing information about ways outdoor time helps children focus on more "academic" work when they return indoors (1). Not only will you be building support for your curriculum, you may be training grassroots advocates for recess who will become active if their child's future elementary school threatens to eliminate daily outdoor play.

■ ***Outdoor play is becoming more connected to childhood health issues.*** With a record percentage of our preschoolers—and kids in general—overweight (14), including active outdoor gross motor play in their routine takes on a whole new sense of urgency. We can expect to hear more and more encouragement of outdoor activity from government and private sources and see more promotional campaigns from companies whose business is tied to

children. For example, Nickelodeon has launched a "Let's Just Play" campaign that features a "Worldwide Day of Play" in October—all aimed at getting kids and parents outdoors to play. On its first-ever "Worldwide Day of Play" in October 2004, the network took the highly dramatic step of "going dark", i.e., not broadcasting for that afternoon in an effort to encourage play. This kind of outreach about the importance of outdoor play for physical health can reinforce teachers' efforts to communicate that message for parents.

■ ***We're developing better ways to include children of all abilities in outdoor play.*** More and better efforts are being applied to recognizing and addressing outdoor play challenges, including better playground design so that children of all abilities can play. According to the National Center for Boundless Playgrounds, five million American children have some sort of disability that inhibits their capacity to enjoy a traditional playground (www.boundlessplaygrounds.org). Boundless Playgrounds is leading the charge to make more outdoor play spaces universally accessible. As more children with disabilities are included in child care centers and preschools, teachers may be expected to develop skills for helping them fully participate by adapting games, activities, and environments.

■ ***Educators are expected to help develop responses to bullying and rough-and-tumble play.*** Another playground challenge—children bullying each other—is also becoming a more prominent issue. As a proactive strategy for reducing playground bullying in the elementary years, preschool educators may find themselves expected to address the issue with younger children (3).

Another troublesome area for many educators is how to understand the rough-and-tumble play—more characteristic of boys than girls (12)—especially since so many early childhood programs are staffed by women who may have difficulty interpreting the signals imbedded in what might be called "boy culture" (7). We can expect to see continued attention on these areas as more

research is completed and as more results from interventions are available (e.g., Operation Respect's "Don't Laugh at Me" curriculum, information at www.operationrespect.org/curricula).

■ **Teachers are on the frontlines of addressing "nature-deficit disorder."**

"There's no way we can help children to learn to love and preserve this planet if we don't give them direct experiences with the miracles and blessings of nature," noted Anita Olds, the late designer with a special gift for child-centered indoor and outdoor environments (9). San Diego-based journalist Richard Louv has researched the relationship many of today's children have with nature and expresses his concern that our kids are growing up with "nature deficit disorder" thanks to technology, overscheduling, parental fears, and a litigious, rule-bound culture. The consequences, he predicts, may have serious emotional, physical, and cognitive impacts on children who do not learn how to use the outdoors for reducing stress, stimulating creativity, and building strong bodies (4). Early childhood teachers, in the role of child and parent educator, can help children (and their families) establish the habit of—or better yet, a hunger for—being outdoors and the skills for engaging with natural environments.

Imagine young children's daily lives if the range of their experience began and ended at the door into their school or child care center, only to re-emerge when it is time to go home. Certainly many would agree that something important was missing from their education. Yet, when they go home, today's young children are experiencing more and more of life indoors. As an early childhood educator who has impact on both kids and parents, you can be the first line of defense against a culture-wide loss of appreciation for the whole package of developmental benefits our children can only access if they have a healthy relationship with the great outdoors and its natural wonders.

Spread the word to parents, administrators, and others who make decisions about how children spend their time every day. Outdoor play doesn't require a

playground or a park or an hour or a warm, sunshiny day. It only requires a commitment to kids' healthy development. Nature is standing by—ever patient, available whenever we want—ready to nurture the young children in our care.

References

- (1) Bogden, J. F., & Vega-Matos, C. A. (2000, March). "Fit, Healthy, and Ready to Learn: A School Health Policy Guide. Part I": *Physical Activity, Healthy Eating, and Tobacco-Use Prevention*. Alexandria, VA: National Association of State Boards of Education.
- (2) Clements, R. (2004). "An Investigation of the Status of Outdoor Play," in *Contemporary Issues in Early Childhood*, 5, November 1, 2004.
- (3) Frost, J. L., Wortham, S. C., & Reifel, S. (2005). *Play and Child Development*. Upper Saddle River, NJ: Pearson/Merrill Prentice Hall, p. 307.
- (4) Louv, R. (2005). *Last Child in the Woods: Saving Our Children from Nature Deficit Disorder*. Chapel Hill: Algonquin Books.
- (5) Hofferth, S. L., & Sandberg, J. F. (2001a). "Changes in American Children's Time, 1981-1997" in T. Owens and S. Hofferth (eds.) *Children at the Millennium: Where Have We Come From, Where are we Going?* Advances in Life Course Research Series. New York: Elsevier Science.
- (6) Hofferth, S. L., & Sandberg, J. F. (May 2001b). "How American Children Use Their time." *Journal of Marriage and Family*, 62.
- (7) Johnson, J., Christie, J., Wardle, F. (2005). *Play, Development, and Early Education*. Boston: Pearson Education.
- (8) McKee, B. "Growing Up Denatured." *The New York Times*, Thursday, April 28, 2005, page D1.
- (9) Olds, A. R. (2000). *Child Care Design Guide*. New York: McGraw Hill.
- (10) Shin, D., & Frost, J. L. (1995). "Preschool Children's Symbolic Play Indoors and Outdoors." *International Play Journal*, 3(2).
- (11) Sluss, D. J. (2005). *Supporting Play: Birth through Eight*. Clifton Park, NY: Thomson/Delmar Learning.
- (12) Smith, P. (1997, October). "Play fighting and fighting: How Do They Relate?" Paper presented at the meeting of the International Council for Children's Play, Lisbon, Portugal.

(13) Wellhousen, K. (2002). *Outdoor Play Every Day*. Albany, NY: Delmar/Thompson Learning.

(14) U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2000, February). *School Health Index for Physical Activity and Healthy Eating (Elementary School): A Self-Assessment and Planning Guide*.

(15) www.boundlessplaygrounds.org/playmatters/whatMakesBPUnique.php

(16) Youth Trust, April 2004 Youth Pulse proprietary data.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 2.6. True/False

- ___ 1. Time outdoors enhances children's (and adults') mental health.
- ___ 2. Children who spend their days mostly indoors are calmer and more manageable.
- ___ 3. Children's play sustains itself in environments that offer the most possibility of discovery and inventiveness.
- ___ 4. Loose parts provide opportunities for children's inventive play.
- ___ 5. When opportunities for interesting play are available to children, supervising their play is both easy and fun.
- ___ 6. Loose parts can transform a static, uninteresting environment into an interesting and pleasant place for everyone.
- ___ 7. Increasing the variety of activities available usually confuses and frustrates children.
- ___ 8. Complex play units enable children to manipulate or improvise.
- ___ 9. In general, complex and super play units are more continuously interesting and can accommodate more children at a time than simple play units.
- ___ 10. A play environment with fewer play choices than children invites disputes and inappropriate behaviors.

- ___ 11. Research studies indicate that young children engage in richer symbolic play outdoors than indoors.
- ___ 12. The teacher/caregiver should have a positive attitude toward the outdoors in order to create a flexible, supportive outdoor play climate for the children.
- ___ 13. Outdoor play periods should allow children sufficient time to engage in complex, integrated, in-depth exploration activities.
- ___ 14. Open-ended outdoor play materials and variety in the play space support spontaneous, creative play and exploration of nature.
- ___ 15. Documentation of how time outdoors promotes children's development can help convince administrators and others to maintain outdoor time in children's days.
- ___ 16. Early childhood educators can be the "first line of defense" against children's nature deficit disorder.

(1. T, 2. F, 3. T, 4. T, 5. T, 6. T, 7. F, 8. T, 9. T, 10. T, 11. T, 12. T, 13. T, 14. T, 15. T, 16. T)

* * *

Correct Statements for False Self-Check Items

Items 2 and 7 in Self Check 2.6 are false. Please review the following correct statements.

- 2. Long periods of time indoors create pent-up energy, making children less able to comply with indoor expectations such as quiet, sedentary, restrained behavior. Children who can be enthusiastic and boisterous outdoors are more relaxed and cooperative when they go indoors.
- 7. Increasing the variety of activities available helps children stay absorbed in play.

Collaborating with Parks

by Diana Friedman

As I visited a Head Start program in a large, low-income neighborhood on Long Island, the director and staff complained to me about the need to take a bus to get to a nearby park. I looked out the window and there was a huge expanse of burned-out grass. They explained that they could get funding for the bus, but not to fix up the adjacent park. Seems a little twisted, right?

That led me on a journey to understand how parks could be designed to enhance children's learning, making perfect outdoor playspaces for child care programs and great field trips for parents and other caregivers. What I learned is that throughout the world, including some parts of the United States, there is a growing movement to use public spaces for lifelong learning that will enhance and sustain the well-being of children, families, communities, and the environment.

This article summarizes the ways that parks can enhance early childhood learning, while promoting health, family well-being, and the environment. Though many initiatives involve the schools, they can also be done in collaboration with child care programs. **While reading this, think about what you could propose to your local parks commissioner or ways to improve outdoor spaces of local child care programs.**

Why parks?

Early learning opportunities

Children are always learning wherever they are, not only in classrooms. The Harvard Family Research Project has defined non-school supports as "complementary learning" and is working to encourage family support programs to develop more opportunities for preschoolers and children after school.¹ All children need hands-on learning environments that respond to and support their varied learning styles, as well as physical activity and opportunities to connect with the natural environment.

All parks should, therefore, offer opportunities for both physical activity and multiple kinds of learning. The richer the park environment, the richer the learning will be.

According to the Help Children Learn Project of the New York City Parks Forum, parks that engage children in informal, experiential learning through play and shared experiences with peers, help lay the foundation for effective formal education.² Furthermore, parks can be a valuable resource for closing the educational achievement gap in communities. *Closing the Achievement Gap*, a landmark study published in 1998, surveyed 40 K–12 schools in 13 states across the U.S., all of which used off-site open spaces to extend learning options for students. The results convincingly demonstrate the positive impact of hands-on learning opportunities, as measured by standardized tests.³

Improving childhood health

Years ago, children spent most of their time playing outdoors, engaged in stimulating physical exercise using backyards, sidewalks, playgrounds, and parks. Yet, the environment of contemporary childhood has changed dramatically, and negative health consequences from these changes have become severe. Parks can offer children a safe place for physical activity and an environment that promotes a positive self identity and sense of belonging as an antidote to social alienation, vandalism, and violence.

About 10% of children ages 2 to 5 are considered overweight.⁴ According to the National Alliance for Nutrition and Activity, obesity rates have doubled for children in the past 20 years. It is important to note that Hispanic and African American children are twice as likely as non-Hispanic white children to be overweight. In addition, low-income communities and communities of color suffer the greatest shortages of green space, which contributes to inactivity and obesity.⁵ Experts predict that if these trends continue, today's youth will be the first generation in this nation's history to have a shorter life expectancy than their parents.⁶ The epi-

demic of obesity, inactivity, and related diseases, such as diabetes, is shortening children's lives and destroying the quality of their lives.

There is also a growing concern about children with ADHD, which affects an estimated eight percent of children 3 to 17 years old. Recent scientific research is beginning to demonstrate a health-promoting impact of everyday green space on child development and on ADHD-like behavior, in particular.⁷ Research has shown that time spent outdoors strongly correlates with increased physical activity in children.⁸ Furthermore, physically fit children perform better academically.

These negative health trends do not just affect children. Early childhood teachers and parents can benefit from a well-designed park. In one community study, creating or enhancing places for physical activity led to a 26% increase in the number of people exercising three or more days per week. Information outreach, along with enhanced places for physical activities, resulted in a 48% increase in physical activity for adults.

Strengthening families

With the prevalence of the two-earner family, parents and children spend less time together than families in the past. Sociologists call it "time famine," and it is shortchanging both parents and children in our 24/7 environment. Parks offer public spaces where family members of all ages can spend quality time together. Many child care programs hold their year-end parties in public parks because they offer so many opportunities for multi-ethnic gatherings and intergenerational activities. Those with disabilities can benefit from outdoor recreation areas, but special attention is needed to smooth out uneven surfaces, make signs more readable, and adapt playground equipment to be more accessible or useable by children or parents with disabilities.⁹

Community revitalization

Parks are inherently attractive to children because they permit escape from the tight strictures of daily life. For the

first time in history, childhood is torn between the tight space of television, couch, and computer screens and the free-range spaces of the neighborhood. These spaces must be designed to be so attractive they will help win the tug-of-war between sedentary indoor life and an active life outdoors. For child care programs, it is an excellent way to join with other community leaders to create something for everyone. Those relationships may come in handy when your program is in need.

Environmental stewardship

Parks clearly offer a vehicle for children's participation in community development, citizenship, and democratic processes. If children participate in the design of spaces in their neighborhood, they will value and respect them more fully. UNICEF's Convention on the Rights of the Child supports this democratic right of young people to be engaged, to be part of the process.

The Italian Interministerial Technical Committee for Environmental Education outlined the education role for the parks to supplement the more traditional role it has played. The educational strategy of the parks typically involves the schools visiting the park. In Italy, they become the schools of the parks, representing not only a vital service for the survival of local communities, but also a primary cultural structure in the area. The partnerships that form between school and park authorities allow the community to express its needs over time. The parks can become real laboratories where schools and visitors can take part in or verify a concrete program towards sustainable development. The Italians promote their program with the phrase, "sulla terra in punta di piedi" (on the earth on tiptoe).

In conclusion

There are many ways to incorporate a learning focus into parks and opportunities for early childhood programs to work with local residents to improve parks so they benefit children, families, early childhood programs, schools, neighborhoods, and the environment. These ideas create opportunities for child care directors to form relation-

ships with other social service organizations, civic leaders, educators, and residents by working collaboratively on a host of exciting activities—playscapes, treasure hunts, specialty camps, naturalist-lead programs, celebrations of Earth Day, Greek myths told at night under the stars, nutrition programs using gardens of herbs, bird watching, forensic labs that help solve wildlife "crimes," and landscape painting, to name a few. Child care providers, please take the time to think out of the box and into the park or your own playground for ways to enhance your curriculum, engage parents, and build relationships with community leaders. No one knows better than early childhood leaders how to turn outdoor spaces into lifelong learning environments.

Examples Nationwide

There is particular concern about the environments of child care programs which are "not green but gray, uninviting to go outside, and unmotivating for physical activity." In an effort to create entirely new design solutions for early childhood programs, the Natural Learning Initiative in the College of Design at North Carolina State University has brought together urban designers, landscape architects, and architects along with professionals from public health, parks, recreation and leisure, and education who share a deep commitment to systemic change.

They have now developed the Preschool Outdoor Environment Measurement Scale (POEMS), an assessment tool for evaluating the quality of outdoor environments in early childhood programs for children ages 3–5. (www.naturalllearning.org/preschool-outdoor-environment-measurement-scale-poems)

* * *

A unique project in Pittsburgh, Pennsylvania is designed to help the community think differently about what science and math are and who can do it. Initially focusing on middle-school girls, the project tries to counter the negative stereotypes associated with women in math, science, and technol-

ogy, as well as stress the importance of these disciplines to the region's future.

Girls, Math and Science Partnerships (GMSP) is funded by the Heinz Endowments and the Alcoa Foundation and involves partners from the public, private, and educational sectors. The effort involves the creation of "explanatoids" which are signage and media about the science of real world questions in public places.

For example, at the Anderson Park, interactive signage helps children answer questions involving the physics of merry-go-rounds, swings, and twirly bars. At a popular roller coaster in Kennywood Park, large signs in the queue area are designed to stimulate curiosity about the science behind the roller coaster.

The effort was the result of an in-depth study of over 3,000 families and serves as a platform from which parents, educators, and mentors can begin to talk with young women about the opportunities available to them in the world of science. The goal is to bolster "community conversations" around each explanatoid sign, which brings science outside the classroom and into Pittsburgh's neighborhoods.

* * *

The Town of Cary, North Carolina, Parks, Recreation, and Cultural Resources Advisory Board initiated the Kids Together Park because they felt the town should provide its citizens with fully accessible, universally designed family recreation facility. The participatory process was so successful that a nonprofit organization was set up, headed by two of the children who did much of the fundraising. They decided on the name "Kids Together" as an expression of the mission of the park as a place for all children, regardless of ability.

Eventually, a nonprofit organization, Cary Visual Art, created several playful "art benches" and a large sculpted play dragon named Katal (Kids are Together at Last). They then produced Kids Together Explorers educational kits, linking art, nature, and learning. Kids Together Park has become a meeting

ground for families, many of them intergenerational, extended, or visiting from out of town. Multi-ethnic mixes of parents get together, swap parenting tips while their children play and become included in the community.

* * *

In downtown Berkeley, California, elementary school teachers, parents, children, and local residents partnered with several local organizations, including the UC-Berkeley campus, to create the Environmental Yard. An acre-and-a-half of featureless asphalt was replaced with a series of mini-ecosystems reflecting the rich diversity of the San Francisco Bay region. During the summer, Berkeley Parks and Recreation play leaders and Project PLAE (Playing and Learning in Adaptable Environments) organized an array of arts and environment programs serving families citywide.

Replicated in other locations, the Martin Luther King Junior High School Edible Schoolyard is a well-known example that links learning about health, nutrition, and food preparation directly to the hands-on gardening experiences.

A similar idea was developed in Cleveland, Ohio, where the non-profit organization ParkWorks partnered with the city schools, Cleveland Botanic Garden, and Kent State University's Urban Design Center to convert barren asphalt yards into community parks.

* * *

Gardens for Kids L.A. is an initiative designed to bring gardens to schools throughout the city. In its first two years, over 60 new school gardens were created throughout Los Angeles with \$100,000 in annual funding designated by the Mayor and City Council. The City's Environmental Affairs Department, the L. A. Conservation Corps, L. A. Unified School District Nutrition Network, California Integrated Waste Management Board, University of California Cooperative Extension, and the L.A. Urban Resources Partnership worked with teachers, students, and parents to implement gardens at each school.

Sustainability is a key issue for the Gardens for Kids L. A. program. Many types of gardens are grown. In addition to vegetables and flowers, herbs or native plants can be grown. Gardens can be designed to attract butterflies or birds. They can also have a theme. Think about a Shakespeare garden with plants mentioned in his plays, or a rainbow garden with flowers in all the colors of a rainbow, or an alphabet garden with each plant having a name starting with a different letter.

* * *:

Since 1984, Parks & People Foundation has worked to improve the quality of life in Baltimore's neighborhoods. Their strategy involves efforts to improve the physical, social, and environmental quality of neighborhoods through greening activities and networks committed to sustaining natural resources. Their tree planting program is designed to improve communities and reduce crime.

They work in partnership with the Baltimore City Public School Systems to remove asphalt and replace it with green space on school yards. They have brought together the Living Classrooms Foundation and the Baltimore Ecosystem Study to assist with student ecological education in a program called YARD (Youth Affecting Restoration Designs) to provide meaningful Chesapeake Bay experiences for youth.

* * *

Get REAL! (Recreational and Environmental Adventures in Learning) focuses on using Florida State Parks as "classrooms without walls." The initiative builds on the parks' broad multicultural educational and recreational programs to enrich learning and integrate the use of state parks with local community programs. It shares the wonders of Florida's state parks with children and adults, seniors and economically disadvantaged individuals, forming lifetime advocates for land conservation, outdoor recreation, and environmental protection. (www.floridastateparks.org)

* * *

Parks 2020 Vision in Portland, Oregon, developed in 1999 and completed in 2001, is a broad-based, citizen-driven directive that presents the vision, guiding principles, and recommendations for Parks and Recreation for the next 20 years. The plan covers everything from parks, open space, and natural areas to community centers and swimming pools. It discusses programs, partnerships, and funding. It builds on the past and prepares for the future. Extensive public outreach and input included newsletters, community meetings, focus groups, polls, and a web-based questionnaire that drew over 1,500 responses.

Its principles include: Essential Elements that create a livable, dynamic, and economically vibrant city; Connected System for all trails, parks, natural areas, streams, and rivers that are integrated with community centers and recreation facilities serving all residents; Inclusive and Accessible; Stewardship for all the elements of the built and natural world, sustaining them for future generations; Intrinsic Value and interrelationships of all organisms with their environment are recognized; Excellence bringing joy, fulfillment, and growth to the lives of residents; Beauty and Innovation; Future Needs; and Civic Involvement.
(www.portlandoregon.gov/parks/40182)

References

1. "Beyond the Classroom: Complementary Learning to Improve Achievement Outcomes." The Evaluation Exchange. Harvard Family Research Project, Spring 2005.
2. Moore, R. (2005). "How Cities Use Parks to Help Children Learn." City Parks Forum Briefing Papers 06. www.naturalearning.org.
3. Lieberman, G., & Hoody, L. (1998). "Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning." San Diego, CA: State Education and Environment Roundtable.
4. Ogden, C., Flegal, K., Carroll, M., & Johnson, C. (2002). "Prevalence and Trends in Overweight Among U.S. Children and Adolescents, 1999-2000." *Journal of the American Medical Association*, 288 (14), 1728-1732.

5. California Center for Public Health Advocacy, An Epidemic: Overweight and Unfit Children In California Assembly Districts, December 2002.
6. Gonzalez, MD, E., L. A. County Dept. of Public Health, testimony January 21, 2004, LAUSD Citizens' School Bond Oversight Committee.
7. Faber Taylor, A., Kuo, F., & Sullivan, W. (2001). "Coping with ADD: The Surprising Connection to Green Play Settings." *Environment & Behavior*, 33 (1): 54-77. Sage Publications, Inc.
8. Sallis, J., et al. (2003). "Environmental and Policy Interventions to Promote Physical Activity." *15 American Journal of Preventative Medicine*, 379, 389, 1998.
9. Active Living by Design, UNC School of Public Health, 2005, www.activelivingbydesign.org.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 2.7. True/False

- ___ 1. The Preschool Outdoor Environment Measurement Scale (POEMS) is an assessment tool for evaluating the quality of outdoor environments for children ages 3–5.
- ___ 2. Parks that engage children in hands-on learning experiences help lay the foundation for effective formal education.
- ___ 3. Parks that offer a safe place for physical activity promote positive self-identity and a sense of belonging.
- ___ 4. Childhood obesity is likely to result in a shortened life expectancy.
- ___ 5. Physically fit children perform better academically.
- ___ 6. Spending time outdoors every day is beneficial to children with ADHD.

(1. T, 2. T, 3. T, 4. T, 5. T, 6. T)

Playgrounds for School-Age After-School Programs

by Francis Wardle

For a variety of reasons—including working parents, single-parent homes, problems with latch-key children, and the increase of gangs—after-school programs for school-age children are increasing rapidly. These programs are run through existing public and private schools, in public and private child care centers, and by a variety of recreation agencies. Operators of these programs face challenges that include funding, staffing, adapting the physical space, program development, transportation, and safety. And part of the challenge is providing safe, adequate outdoor play opportunities.

School-age after-school programs use a variety of ways to meet outdoor play needs. These include using existing school and city playgrounds, sharing child care playgrounds, and creating play areas specifically for the program. Suggestions here are designed to help programs using any of these options, along with other creative solutions.

Safety

Playground safety is an ever more important concern for all children's programs. There are four basic components to outdoor playground safety (9):

1. **Age Appropriateness.** Because school-age programs often use playgrounds designed for other programs, this is a critical concern. What makes it even more challenging is the age range of children in typical school-age programs. School-age children have different physical abilities from preschool children. They also have different play needs. Thus playgrounds designed specifically for preschoolers do not work with this age child. By the same token, exercise equipment designed for adults (found on jogging trails and public parks) may be too advanced for school-age children—especially the lower end of the age range. It is critical the school-age playground

matches the developmental level of children using it.

2. Equipment and Equipment Placement. The Handbook for Public Playground Safety (12) and the Standard Consumer Safety Performance Specification for Playground Equipment for Public Use (1) are two safety documents used by school districts, state licensing departments, litigation lawyers, and playground manufacturers. These documents should be used to check the safety of your playground. If you share a playground with a school or recreation program, make sure they use one of these documents to assure safety. There are also simple playground safety checklists available from a variety of children's agencies, including NAEYC, ACEI, the National Program for Playground Safety, and AAP.

The most critical safety concerns for outdoor playground equipment and placement are: providing adequate fall zone materials under all equipment and a minimum of 6 feet surrounding the equipment (pea gravel, fiber, sand, or approved rubber mats); head entrapments (no openings between 3 ½ and 9 inches); making sure equipment is away from traffic areas; adequate railings; and no entanglements (catching clothing on protrusions) (2). Also some traditional school and park equipment is simply too high for safety (12).

3. Supervision. No playground equipment can safely be used without supervision (3). It is the responsibility of all school-age programs to provide active supervision at all times children are playing. If this is not possible, use of the equipment should be limited to when supervision is available.

4. Maintenance. Broken, damaged, and deteriorated playgrounds cause safety concerns. Every program should create or adopt a safety checklist that is used on a regular basis to ascertain maintenance needs. Further, someone must be in charge of playground maintenance. If you use space with another program, make sure there is a maintenance check procedure and that your contract with them includes playground maintenance.

School-Age Playgrounds

American playgrounds have gone through an evolution from metal, gross motor, and functional equipment on concrete or asphalt pads to contemporary playgrounds of linked structures, slides, monkey bars, swings, platform bridges, and steps (5). Along with changes in the basic features, today's public playgrounds are designed to minimize accidents and provide for safe play.

While tremendous advances have been made in playground design—in safety, materials, and expanding beyond just functional physical play—most playgrounds available today match the needs of children three to six years old (11; 8). This is partly because commercial playgrounds are manufactured using a unit approach, which controls the sizes of all basic units such as steps, platform heights and sizes, and slide lengths and widths.

Programs that serve infants and toddlers have a challenge creating adequate playgrounds (7); those that serve school-age children know typical preschool playgrounds do not work well for them.

School-Age Children Are Different

Part of the reason typical playgrounds don't work for school-age children is because many of these children are tired of the old playgrounds: they want something new! Unlike children of the past, today's children have spent most of their short lives in child care programs.

Another reason is that most child care programs have playgrounds designed specifically for children two through six and thus are not challenging for older children. Some programs have tried to offset this problem by increasing the level of difficulty of these playgrounds, but the result has been more accidents involving younger children.

And, finally, school-age children have different play needs from younger children. They are moving from the physical play of climbing, running, crawling,

and swinging to specific challenges like overhead rings and chin-up bars; they are progressing from cooperative play younger children enjoy to hanging out, groups, and cliques; and they are now more interested in competitive athletic activities such as baseball, basketball, soccer, football, hockey, and volleyball.

A Playground for School-Age Children

Here are some suggestions for developing playgrounds for school-age children. They are intended to help all programs respond to the unique needs of this age child.

School-age children need a physical space they can call their own (2). This space should not include the toddler or preschool area within it. It may be a totally separate space, an area marked by a fence or other physical barrier, or an area designated by an agreed upon demarcation, such as a sidewalk, row of trees, or beyond the sandbox. School-age children should never use younger children's equipment; younger children should not use the school-age equipment.

Hang-Out Area. School-age children need a place to hang out and socialize. Some playground companies have recognized this need and provide equipment that encourages this activity. Ingenious programs with skilled crafts people can create their own school-age equipment. At the least, provide several picnic tables away from general traffic, under some shade, and somewhat secluded from adults and other children.

Challenging Physical Activities. Young children enjoy upper body and other physical challenges as part of overall play: climbing up ladders, traversing monkey bars, running over a bridge. As children grow older, they begin to enjoy the challenges of isolated physical activities: chin-ups, sit-ups, climbing up a rope, using overhead rings, arm challenges, and running activities. Provide equipment that encourages this kind of physical play. This can be achieved through inclusion of specific equipment that encourages this

type of play, adding these items to a traditional preschool playground, and using the kind of outdoor exercise equipment found on jogging paths and parks designed for adults (but not for the younger school-age children).

Games and Athletics. Older children's ability to play by complex rules (10) — their increased competitiveness and increased interest in the adult games of their culture—means they are very involved in playing competitive games. This poses a problem because many of these activities require lots of space. However, programs that use school and park facilities may be able to use their athletic facilities.

Often a single basketball hoop (strategically placed to avoid lost balls and broken windows) begins to meet this need, and a volleyball net strung between two trees can create a fun diversion. Baseball, of course, can be played almost anywhere, so long as there is enough space. An ideal school-age playground will include a grass area that can be used for soccer, football, volleyball, and other games.

Adapting Conventional Preschool Equipment. Traditional preschool equipment can be made more attractive to school-agers by increasing the physical challenge (4). If you use a traditional linked playground of slides, bridges, monkey bars, and climbers for your school-age program, increase the height of the slides, and add a pulley or track run, spiral slide, and overhead rings. School-age children seem to like swivel tire swings (a tire hung horizontally by three chains) a great deal—apparently it provides for the social needs of this age.

Conclusion

In trying to meet the outdoor play needs of school-age children, it is critical to recognize these children have physical, cognitive, and social needs that differ both from preschoolers and older children. Even though there are a vast diversity of school-age programs and physical facilities, it is possible to design and modify playgrounds to meet the needs of this unique age child.

References

- (1) American Society for Testing and Materials. Standard Consumer Safety Performance Specifications for Playground Equipment for Public Use. Philadelphia, PA: author, 1995.
- (2) Dempsey, J., E. Strickland, and J. Frost. "What's Going On Out Here? An Evaluation Tool for Your Playground." Child Care Information Exchange, May/ June 1993.
- (3) Frost, J. Play and Playscapes. Albany, NY: Delmar, 1992.
- (4) Frost, J., and S. Campbell. Play and Equipment Choices of Second Grade Children on Two Types of Playgrounds. Austin, TX: University of Texas, unpublished manuscript, 1977.
- (5) Frost, J. L., and S. Wortham. "The Evolution of American Playgrounds." Young Children, 1988, 43 (5), 19-28.
- (6) Gallahue, D. L. "Motor Development and Movement Skills Acquisition in Early Childhood Education." In B. Spodek (editor), Handbook of Research on the Education of Young Children. New York: Macmillan Publishing Co., 1993.
- (7) Greenman, J. "It Ain't Easy Being Green." Child Care Information Exchange, May/June 1993.
- (8) Johnson, J. E., J. F. Christie, and T. D. Yawkey. Play and Early Childhood Development (Revised Edition). New York: Longman, 1998.
- (9) National Program for Playground Safety. Cedar Falls, IA: University of Iowa, 1995.
- (10) Piaget, J. Play, Dreams, and Imitation in Childhood. New York: W. W. Norton, 1962.
- (11) Steele, C., and M. Neuman. "Infant's Play on Outdoor Play Equipment." In J. L. Frost and S. Sunderlin (editors), When Children Play. Wheaton, MD: ACEI, 1985.
- (12) U. S. Consumer Product Safety Commission. Handbook for Public Playground Safety. Washington, DC: U.S. Government Printing Office, 1997.

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

A School-Age Play Yard with Action and Adventure

by Deb Curtis

A number of years ago I was involved with training the staff in an after-school program located in a small shopping mall. The program had no outdoor play area of their own, but they were able to take the children to a park right around the corner. One sunny autumn afternoon I was with the group at the park when we discovered a tree with a massive trunk and large bare branches that had been blown over by a dramatic wind storm the night before. The children who lived in the local neighborhood were there in full force, enthusiastically immersed in exploring the tree. They were running and jumping off the trunk, climbing the branches, dismantling the broken limbs, and cooperatively using them to build forts and create exciting adventures. In contrast, the teachers I was with decided these activities were unsafe and spent the entire time we were there keeping their group of children away from that amazing tree. It was no easy task as there was a strong force drawing the children to investigate this powerful phenomenon of nature.

This experience has had a profound impact on my work with children. I continually question and reflect on the limits I put on children's experiences. What are they missing when their childhood is spent in fenced-in, often sterile or commercial outdoor environments away from the ongoing changes of the natural world and the events of everyday life in a neighborhood? Are the rules we make to keep children safe also keeping them from rich experiences that are vital for their self confidence and growth and development? If we eliminate all of the risk from children's lives, how will they learn to keep themselves safe? Because safety is our utmost concern, offering children opportunities for these physical challenges and adventures requires planning and ongoing negotiations.

Provisioning the Outdoor Play Area

To provide children ongoing experiences with the natural world and its cycles, the program where I work uses simple and accessible strategies. With a grant from our local native plant society we planted a natural garden with flowers, bushes, and trees to take care of and to observe their change and growth. We intentionally let the grass grow tall in a section of the playground and then mow paths through it so the children can run and hide in it. We let grapevines, berry bushes, and apple trees grow against the fence of our yard so early fall becomes foraging time with children trying to figure out how to pick the fruit from the tallest branches and not get poked by the thorns. In the dark days of winter we buy inexpensive flashlights and explore the night and darkness together.

We have provisioned our play yard with loose parts and natural materials for building and cooperative hauling with such items as boulders, driftwood, large tree branches, plywood, plastic bins and boxes, and moveable slides and ramps. We have designated a portion of the yard for a digging area where the children use small industrial shovels to dig, pile, bury, and rearrange the earth over and over again. The staff and children have identified trees in the yard that are safe for climbing and rules for supervising climbers and protecting the trees. We've added new equipment to the outdoor environment with the goal of providing satisfying, yet safe challenges for the children's increasing confidence and physical skills. A group of staff and families built a tire wall from recycled tires, added rock climbing posts to the back of a playhouse for scaling the incline to the roof, and created a concrete path with a natural slope for going fast on a bike or roller skates.

Negotiating Rules and Risks

Because we have a wonderful playground designed for action and adventure, the entire community of children, staff, and many parents are continually involved with reflecting on the activities that take place and negotiating the rules and risks. We believe this active process helps our playground to be safer than a playground that has established rules without discussions or negotiations.

A great example of this process occurred when we first built the tire wall. There was a big difference of opinion about the rules that should be established to keep the children safe as they climbed. We began by wrapping a caution tape around the climber and only opening it for climbing during planned times of close supervision and observation. We invited the children and adults to participate in a study to determine the safest way to climb the wall. Each day we opened the wall and observed the children as they climbed. Adults tried climbing as well. Following each session we had discussions about the best routes, the safest ways to climb, and how high to go. This process helped us establish effective guidelines and collaborative agreements, and best of all the children really learned how to climb the wall safely.

Mini versions of this process take place almost every day on our playground. The adults and children call attention to activities that may push safety boundaries. Together we try things out, observe, discuss, and get a variety of opinions before changing or establishing a rule. The children in our program work on assessing their own abilities and take up the challenges that match their comfort level and physical skills. They are able to be fully engaged in their bodies and imaginations while also learning to keep themselves safe, even when adults are not around!

Copyright © 2015 by Exchange Press, 800-221-2864. Reprinted by permission.

Self Check 2.8. True/False

- ___ 1. The typical preschool playground works very well for school-age children in after-school programs.
- ___ 2. Almost all playground equipment designed for school-age programs can be used safely without supervision.
- ___ 3. School-age children need places to hang out and socialize with their friends.
- ___ 4. School-age children enjoy competitive games such as baseball, basketball, and soccer.
- ___ 5. Older school-agers can use exercise equipment designed for adults.
- ___ 6. Rules for the safe use of outdoor play equipment at the playground described by Deb Curtis are made by the staff.
- ___ 7. Participation in establishing safety rules helps children learn to use equipment safely.

(1. F, 2. F, 3. T, 4. T, 5. T, 6. F, 7. T)

* * *

Correct Statements for False Self-Check Items

Items 1, 2, and 6 in Self Check 2.8 are false. Please review the following correct statements.

1. Playgrounds for school-age children must match the developmental level of the children using them. Equipment designed for younger children does not provide sufficient interest and challenge to meet the needs of school-agers.
2. No playground equipment can safely be used without supervision. Responsible adult supervision must be provided at all times when playground equipment is in use.
6. Rules for the safe use of outdoor play equipment at this facility are negotiated by the community of children, staff, and parents.

Lesson 2 Quiz

Please read Lesson 2 two times before attempting its quiz. When you have finished reading this lesson, return to **My Courses** within your Account at www.CareCourses.com and open your course file to access the Online Quiz for this lesson and instructions for submitting your answers for grading.