

Children and Place A Natural Connection

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*****Note: Figures may be missing from this format of the document**

Children need wild places. Both the world of imagination and the natural world beckon children to explore secret places and to make profound connections with the plants and animals of the earth. The popularity of Maurice Sendak's book *Where the Wild Things Are* (1963) attests to this need. Readers are thrust into an adventure involving teeth-gnashing beasts that live in a vine-covered forest. In the book *Geography of Childhood* (Nabhan and Trimble 1994), Gary Nabhan writes about his own children's choice of small, intimate places and the increasing loss of wild places for everyone. "To counter the historic trend toward the loss of wildness where children play, it is clear that we need to find ways to let children roam beyond the pavement, to gain access to vegetation and earth that allows them to tunnel, climb, or even fall" (9).

Robin Moore and Nilda Cosco (2001) design childhood habitats that connect children to place. On the designers' Web site (www.naturalearning.org), they share a philosophy in which "nature must be seen as an essential component of the experiential world of childhood, designed into every childhood habitat, providing daily immersion in nature, putting children in close touch with the biosphere." Their philosophy reinforces what Rachel Carson eloquently shared in *The Sense of Wonder* (1956)--that it is not half as important to know as to feel. "Once the emotions have been aroused--a sense of the beautiful, the excitement of the new and the unknown, a feeling of sympathy, pity, admiration or love--then we wish for knowledge about the object of our emotional response. Once found, it has lasting meaning" (56).

As environmental educators, our responsibility is to see that all children have opportunities to develop relationships with wild places right in their communities to develop this critical sense of place. Every community needs citizens of all ages who feel a connection to a creek, a meadow, a park, or a playground. It is especially important to remember the axiom of Baba Dioum, a Senegalese ecologist: "In the end we will conserve only what we love, we will love only what we understand; and we will understand only what we are taught" (www.cybernation.com). Aldo Leopold, one of America's premier conservationists, remarked, "Our remnants of wilderness will yield bigger values to the nation's character and health than they will to its pocketbook, and to destroy them will be to admit that the latter are the only values that interest us" (1990, 160-61). Leopold wrote for those of us who cannot live without wild things. In turn, we need to provide experiences for children of all ages who need wild things.

Matt Sanger (1997) refers to sense of place as "an experientially based intimacy with the natural processes, community, and history of one's place" (4). He, like David Orr (1989), views education regarding a sense of place as a dialogue or conversation with the environment in which all human and nonhuman elements mutually enhance each other. Unfortunately, in the current school environment, students are often discouraged from forming an attachment to place and community. The individual is seen as an autonomous being, separate from his or her community. Also, we use language and metaphors that reflect an industrial worldview, rather than trying to connect students to the land and to the community they inhabit. In addition, the use of a textbook that

serves as an impersonal authority marginalizes students' own experiences of place. David Orr feels that students are taught to reside in, rather than to inhabit, the places where they live, which leads to alienation from place and concurrent eco-illiteracy. The purpose of this article is to share ideas and outdoor activities that K-12 teachers can use to engender in students a critical sense of place.

BACKGROUND

A DEVELOPMENTAL APPROACH TO SENSE OF PLACE AND SUGGESTED ACTIVITIES

David Sobel (1998) in the article "Beyond Ecophobia" presents a developmental approach to achieving an ecological intimacy with the natural world and place. He has collected and analyzed neighborhood maps from hundreds of children in the United States, England, and the Caribbean over the past 10 years and has coined the term ecophilia to suggest healthy ways to foster intimacy with the environment. Sobel recognizes three stages of development (from ages 4 to 15) that provide the basis for bonding with the earth (20). We used this theory of ecological awareness to create activities related to place that are appropriate for children of different ages. Although the activities we present are geared toward children of particular ages, they can be adapted for any age group.

YOUNG CHILDREN (4-7 YEARS OLD)

Sobel calls the first developmental stage Empathy: Finding Animal Allies. This stage occurs when children are between 4 and 7 years old, a time when their own backyard and, later, the schoolyard, are the center of the universe. Time is needed to explore these places, and the animals, such as insects, spiders, birds, and pets that inhabit them fascinate young children. Empathy for creatures, both real and imaginary, can be cultivated along with a sense of connectedness. Listening to stories and role-playing the creatures in the stories help children practice "ecology at its most profound and healing level" (21).

ACTIVITIES FOR YOUNG CHILDREN

The first activities that we suggest for teachers to use for outdoor education are based on the work of Joseph Cornell, the author of *Sharing Nature with Children* (1989, 1998). Cornell espouses that every beneficial relationship is based on an intuitive level of magnetism between teacher and student; it is not based on strictly informational content. Outdoor leaders need to be sensitive to the group with whom they are working and use a methodology called "flow learning" that involves guiding students step by step through the following stages: Awakening Enthusiasm; Focusing Attention; Directing Experience; and Sharing Inspiration (1989, 46-47). Cornell suggests that outdoor leaders express personal feelings about nature; be sensitive to the reactions of students; experience first and talk later; and make nature experiences joyful (1998, 13-15).

ACTIVITY 1: SPECIAL PLACES (DERIVED FROM A WORKSHOP WITH JOSEPH CORNELL [OCTOBER 2001])

MATERIALS

- Blindfolds (or bandannas)
- Natural areas (e.g., backyards, parks, and school grounds with a wooded area or a bordered field or woods)
- Notecards
- Pencils
- Crayons

This activity provides an opportunity to use senses other than sight to experience special places in more atypical ways.

PROCEDURE

1. Divide students into pairs. Blindfold or have one partner close his or her eyes while the other leads the blindfolded child carefully to a particular natural place. Make sure that the place is free of hazards, such as poison ivy or a sharp drop-off. While standing in that place, have the blindfolded child use all his or her senses except sight to feel the environment. Make sure that nobody talks during this part of the activity. After the

blindfolded partner has finished gleaning the feel of the environment, lead him or her back to the starting point. Allow at least 10 or more minutes for each child.

2. With the child's eyes open, ask him or her to draw or describe in words what the place felt like and, if possible, to find the way back to it.

3. Next, have the partners switch roles and repeat the exercise.

4. When all the children are finished, sit in a circle and ask each child to share what he or she discovered by using senses other than sight. For example, could they find their places again? What provided the best clues? How did their place become their teacher?

ACTIVITY 2: HIDING PLACES (ADAPTED FROM "CAMOUFLAGE" IN SHARING NATURE WITH CHILDREN [1998, 102])

In a workshop with Joseph Cornell, Ms. Vickers had the opportunity to experience this activity and the joy that is a hallmark of Cornell's outdoor teaching.

MATERIALS

"Camouflage clothes" (e.g., green, brown, or army camouflage)

A natural area (a wooded area or a field of tall grass)

Blindfolds

PROCEDURE

1. Let the students brainstorm to discover what characterizes good hiding places for a variety of animals and how camouflage serves as a protective strategy for them. For the following day, ask the students to come to class dressed so they will blend into a particular environment on their school grounds. For example, suggest colors, textures, and costumes that will help them hide from view on a wooded path, in a grassy field, or among trees or garden bushes.

2. Choose 1 student to be a blindfolded predator that gives the prey (the camouflaged students) 3-5 minutes to hide.

3. Next, have the predator take off the blindfold and, in 3 minutes, try to spot as many prey as possible. Those prey that are spotted or found become predators, too, and the prey are allowed 3 minutes to hide again. Continue the activity until all the prey are caught.

4. Arrange the class in a circle and further discuss the characteristics of a good hiding place or what enabled the prey to hide successfully.

5. Spend the remainder of the period looking for camouflaged animals and insects in hiding places in the woods, trees, or garden areas of the school grounds. This will help students discover more fascinating natural places right in their own backyard, so to speak.

PRE-ADOLESCENT CHILDREN (7-11 YEARS OLD)

Sobel calls this developmental stage Exploration: Teaching the Landscape. Your curriculum should "mirror the expanding scope of the child's significant world, focusing first on the surroundings of the home and school, then the neighborhood, the community, the region, and beyond" (1999, 21). Children of this age group are pushing their geographical ranges, exploring landscapes, making forts and dens, and creating hiding places. Primary experiences of following streams and exploring local ecosystems help students bond even more deeply with nature.

ACTIVITIES FOR PRE-ADOLESCENT CHILDREN

ACTIVITY 3: READING AND WRITING BOOKS ABOUT YOUR FAVORITE PLACES

In her book *Ecological Education in Action: On Weaving Education, Culture and the Environment*, Elaine G. Schwartz declares, "Our pedagogy should lead students to become well informed and active in the struggle to preserve the ecosystem and humanity's diverse cultures" (1999, 103). Schwartz highlights a children's book, *My Place*, by Nadia Wheatley and Donna Rawlins, that values cultural traditions, bioregionalism, bioregional narrative, and the multidimensional nature of knowledge. *My Place* provides "a child's-eye view of the

ecological, multicultural, social, and political history of one urban Australian neighborhood over a span of 200 years" (108).

Four other books that connect nature, culture, and history with place include *The Shaman's Apprentice: A Tale of the Amazon Rain Forest* (Cherry and Plotkin 1998); *A River Ran Wild: An Environmental History* (Cherry 1992); *Grandmother Oak* (Dagit 1996); and *City Green* (DiSalvo-Ryan 1994). Books that highlight changes over time, as humans and places interact, offer students meaningful opportunities to experience places through the lenses of others.

While traveling in New Zealand, Ms. Vickers visited an elementary school where she saw students doing an interdisciplinary study about water. The teachers and their students followed a creek from its source in the mountains to its mouth at the sea over several weeks. Taking measurements, recording sightings of plant and animal life, writing poems, and drawing pictures were all part of the outdoor study. The students created an interdisciplinary book that shared the story of their experience of place. Allowing students to create their own books about special places strengthens their relationship with nature.

You can use the following list of questions and suggestions to guide your students as they write their own books.

TELLING THE STORY OF YOUR FAVORITE PLACE

MATERIALS

Paper
Colored pencils
Markers
Posterboard
Glue
Shoeboxes
Tape recorder

- * Describe or draw your favorite natural place.
- * Draw a map of your favorite place.
- * Who are your neighbors at this place--human and nonhuman?
- * What did your favorite place look like 50 years ago?
- * Visit with elderly people who might be able to tell you about the history of your place or visit the library to research what your place was like many years ago.
- * What might your favorite place look like in 50 years?
- * Create a booklet about your favorite place (include everything that you have learned about it).
- * Create a model of your favorite place including the features that make it special.

ACTIVITY 4: DISCOVERING YOUR ECOLOGICAL ADDRESS

The North Carolina Department of Environment and Natural Resources' Office of Environmental Education has a logo that challenges everyone to "Discover Your Ecological Address" (2001). The office's Web site (www.ee.enr.state.nc.us) offers access to environmental data through Geographic Information Systems, a resource library with hypertext links to Web-based environmental education resources. With your students, develop a research project that involves interviewing local merchants, farmers, and resource people to find answers to the following questions:

- * Where does your food come from, and what agricultural products come from your region?
- * What kind of soil(s) do you have in your community?
- * Where does your water come from and where does it go after it leaves your home?

- * What is the river basin or watershed in which you live?
- * What trash or waste does your family produce and where does it go?
- * Where does most of your weather originate?
- * Describe the different seasons in your region.
- * What is the source of energy that heats, cools, and powers your home?
- * What trees, flowers, birds, and other animals do you see in your neighborhood?
- * What methods of transportation do you use, and what kinds of energy do they require?

Have students work cooperatively in teams of 3-4 to create a presentation that they can share with their parents. (Note: Field trip opportunities can be part of this project.) Ask the students to create PowerPoint presentations, posters, and flyers advertising their locality and visit other schools and classes that share the ecological address of the community. Create a bulletin board displaying newspaper articles and other information about your ecological address. Students will become more aware of the needs in their local communities. Assessment can be done by means of a rubric that you can develop with your class.

ADOLESCENTS (AGES 12-15) AND ADULTS

Sobel calls this developmental stage Social Action: Saving the Neighborhood. Twelve- to fifteen-year-old adolescents are interested in themselves, their peer group, and their connections to society. This frequently translates to their exploring new landscapes, including indoor spaces such as downtown areas and the mall. To feel socially connected, teens are eager to do social action projects, for example, recycling projects, stream clean-ups, and debating land-use issues (Sobel 1999, 22-23). In addition, teens are ready for outdoor challenges that involve social groups, as well as solo challenges. For example, they enjoy watching the ecochallenges that they see on the Discovery Channel, so why not involve them in challenges closer to home?

ACTIVITIES FOR ADOLESCENTS AND ADULTS

ACTIVITY 5: CASE STUDIES AND INVESTIGATING ISSUES THROUGH SKILL DEVELOPMENT

Gary Snyder makes a compelling plea for connecting children and place. "Bioregional awareness teaches us in specific ways. It is not enough just to 'love nature' or to want to 'be in harmony with Gaia.' Our relation to the natural world takes place in a place, and it must be grounded in information and experience" (1990, 39).

Hungerford, Volk, and Ramsey in their article "Environmental Education in the K-12 Curriculum: Finding a Niche" (1992) present two models for finding a place for environmental education in the curriculum--Case Studies and Investigating Issues through Skill Development. The first approach is an infusion model that is a teacher-directed analysis of a specific environmental issue, such as the reintroduction of the red wolf. The model gives teachers a lot of flexibility and control as the curriculum designers (38). The second approach, developed by Hungerford, Litherland, Peyton, Ramsey, and Volk (1988), is organized into modules and is called the Issue Investigation Skill Format (39). Teachers are encouraged to insert skills for investigating issues related to the environment into their current curriculum. These skills include writing research questions, obtaining information, interpreting data, and developing issue resolution plans (39).

We encourage teachers to look at both approaches, with an eye toward connecting students to a sense of place. Issues surrounding water quality; solid waste management; green space; inner city restoration; land use; exotic or introduced species; and endangered species speak to the needs of local communities and invite students to become active citizens (35).

In the Piedmont of North Carolian, we choose issues that surround questions such as the following:

- * Where can we find landfill space for our waste in Greensboro?
- * How can we meet the water needs of a growing city that is not located by a river?

- * What are the pros and cons of constructing the new Federal Express Hub in Greensboro?
- * What problems are associated with the reintroduction of red wolves into eastern North Carolina?
- * What is happening to the spruce and fir trees on the highest mountain peaks in western North Carolina?

PROCEDURE

1. Suggest that the students listen to the local news and read newspapers to compile a list of local and regional issues that they can research, investigate, and debate. All their research should be composed of interviews and visits to sites outside of school; thus, encourage students to contact people from the community and region in which they live.

2. Have the students make posters, create PowerPoint presentations, or develop debates around these issues (see Figure 1).

3. Invite guest speakers to give presentations.

4. Use class time to discover useful Web sites, practice research skills, develop interview questions, and make plans for investigations. (Working in cooperative teams will help students divide their time and energy to facilitate progress. You should function as an encourager, motivator, and facilitator.)

Evaluate each presentation with selected criteria that you have determined with class input. Each group should also evaluate itself. Action criteria may include writing letters to city council members, county commissioners, and/or state legislators, or writing newspaper editorials. In fact, your students may affect local and regional change, as well as inform their communities about pressing environmental issues.

ACTIVITY 6: KEEPING A NATURE JOURNAL

Gary Snyder offers us further sage advice: "To know the spirit of a place is to realize that you are a part of a part and that the whole is made of parts, each of which is whole. You start with the place you are whole in" (1990, 38). Joseph Cornell offers an adaptable workbook called *Journey to the Heart of Nature* (2000) in which he suggests that nature explorers choose a special place, name it, interact with it, and invite others to share in its wonder. He recommends experiences of solitude in nature. These can include connecting with place through a series of activities called *Finding and Exploring Special Places*, *Explorer's Guide Activities*, and *Sharing Your Site with a Friend* (Cornell 1998, 124-36).

Paul Lindholdt in *Writing From a Sense of Place*, shares a college curriculum that involves writing and research in which students do "ecological identity" work, as defined by Mitchell Thomashow (1995). Ecological identity involves a process of self-discovery that depends on exploring an affinity with a place (1999, 5). Lindholdt asks students to write about how and when their attachment to place began; he then uses the students' attachment to the bioregions in which they live as a basis for prompting critical thought (5-7).

Leslie and Roth, in *Keeping A Nature Journal*, created a delightful, informative book that includes colorful sketches, powerful quotations, and provocative descriptions. The authors state that "Nature journaling helps you develop a real sense of a place and your role in that place. In today's world, people are transient, moving from place to place often without much thought or knowledge about the actual landscape they live in--how it was formed, what other creatures live there besides humans, who lived there in earlier times, and what makes it the place that it is" (2000, 14). A contributor to this work, Carolyn Duckworth, a teacher and naturalist-artist, writes of her experiences journaling: "I've become convinced that if you want to understand and become connected to your environment, keeping a field journal is one of the fastest ways to accomplish this goal. One simple periodic act--that of marking where the sun rises and sets on your horizon each day--provides a sense of your place on this earth and in this solar system. Noting when the rain falls--or doesn't--sets up another rhythmic connection. Making quick sketches of one or two critters you observe on a walk--another connection" (43).

NATURE JOURNALING SUGGESTIONS: KEEP TWO FIELD NOTEBOOKS--ONE FOR SCHOOL AND ONE FOR HOME

MATERIALS

Cardboard
Construction paper
Glue
Chalk
Night sky
Pencils
Natural materials (e.g., leaves, string, twigs)
Hole punch (for making holes to bind with yarn)
Paper
Seeds
Soil
Water

Students can make their own journal covers, using art materials, handmade paper, or cardboard and contact paper. Project Wild gives directions for creating journal entries in "Wild Words ... A Journal-Making Activity" and "Animal Poetry" (1992, 66-71). We have found that taking time for journaling in the outdoors strengthens connections between writing and place.

PROCEDURE

1. With specified boundaries outdoors, allow students to wander until they find a "special" place, or a place that feels as if it "belongs" to them. Ask the students to sketch or write about what occurs there during different seasons. Make sure that students record their feelings as well as any sensory experiences they have in their place.

2. Spend several class periods taking students to new places on the school grounds to discover organisms or other aspects of nature to sketch. Tell the students to record the time and day and to include the location, weather conditions, and detailed descriptions along with their drawings. Ask the students to also record their feelings and insights.

3. Give homework assignments that involve making connections with nature in neighborhoods. Include questions or directions that help students focus on different aspects of nature. Ask the students to find and record or draw the following patterns and items:

- * Examples of change in your environment (e.g., leaves changing color, mushrooms appearing, weather changes). Use chalk to track the changing shadow of an object from sunrise to sunset.
- * Natural items with different geometric shapes, such as triangles, stars, and cylinders
- * The youngest and oldest things in a place
- * Rain falling, its patterns of flow, and gullies that are formed
- * Animal tracks
- * Your favorite place on the school grounds
- * Map of the cycles of energy movement, such as a food chain or heat being reflected or absorbed
- * Seeds. Plant them to see what grows.
- * Go outside at the same time each night and draw the night sky in one direction in relationship to a fixed object close by. Sketch the horizon and the location of the stars and moon at the same time each night. Notice any changes.
- * Pick a word and go outside to find a metaphor or a simile for it.

ACTIVITY 7: NATURE AUTOBIOGRAPHY: CONNECTING WITH YOUR PLACE

As an optional spring activity, Ms. Vickers' students write an autobiography of their relationship with nature, including ways in which they are both connected to and disconnected from it. She encourages them to describe important places from their childhood as well. This example is from a seventh grade student, Mara, who attends Greensboro Day School. She wrote about her experiences in her grandmother's garden (Waldruff 2001):

My earliest memories include the knowledge and the feeling of being connected to nature in some sort of way, sometimes as a center for myself, sometimes as an underlying rhythm, but always there. I felt that [watching] each beautiful sunset of orange, yellow, pink and purple and reflecting on the fluffy white clouds made me a part of this world. When the moon shone full and bright in the black night sky, I felt as if it were talking to me, whispering into the universe, letting its voice trail off into the wind.

My grandmother's garden is one of my favorite early memories. The musty stench of compost filled my lungs as I breathed in the morning's fresh air through my small freckled nose. As my gaze reached the lush green vegetable garden, I felt a sense of eager excitement leap to my mind. I couldn't wait to dig my hands into the damp, gritty soil to find the wondrous potatoes found buried deep inside the black earth. Our favorite activity in the garden, however, was picking the lumpy, fresh green beans off of their vines and placing them one by one into our big blue bucket.

There are times I feel disconnected from nature. Each time I see construction for a new road, building, or other development, I feel as if another piece of the earth is being torn apart. It is as if each time I witness new developments popping up from nowhere, they are not destroying just a piece of earth but a piece of my soul, leaving a hole in my heart, making me feel a bit more empty inside each time. Many people don't seem to appreciate what the world has given us. They don't understand the importance of nature as nourishment for our souls.

CONCLUSION

David Orr argues that we have become a de-placed people without "a deep concept of place as a repository of meaning, history, livelihood, healing, recreation, and sacred memory and as a source of materials, energy, food and collective action" (1994, 163). He cites five reasons why places--the local arenas--are globally important: (1) humans are place-centric creatures who are shaped by the localities of our birth and upbringing; (2) the environmental movement has grown out of efforts of courageous people to preserve and protect special places; (3) many global problems may only be solvable by many different local solutions; (4) a purely global focus reduces the earth to a set of objects to be used by corporations; and (5) humans have not succeeded in making a global economy sustainable (160-62). These realities demand a radical, caring response from the educational community.

In consequence, the time is critical for humans to address their connection to nature through their intimacy with place. Education provides one strand of the web, as do family and group experiences. Modeling closeness with nature is another important strand. As Rachel Carson so aptly stated in *The Sense of Wonder*, "If a child is to keep alive his inborn sense of wonder ... he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in" (1956, 55). Consequently, we believe that both preservice and inservice teacher education should use many of the activities and experiences that we have presented in this article.

All adults and children are potential teachers of connection to place. People need wild places, and wild places need caring, connected people. Joseph Cornell states that "One individual, whose heart is filled with love and reverence for nature, can make ecological attitudes come alive for others as nothing else can" (1989, 139). Cornell also feels that leaders need to see in everyone the potential for a deep appreciation for nature, while accepting each person as she or he is. "If you treat an individual as he is, he will stay that way, but if you treat him as if he were what he could be, he will become what he could be" (Goethe as quoted by Cornell 134).

ADDED MATERIAL

VALERIE G. VICKERS is the science department co-chair and a middle school science specialist at Greensboro Day School in Greensboro, North Carolina. She enjoys outdoor adventures with her students, such

as working in a permaculture garden, taking field trips, and planning for the transformation of a detention pond into a natural learning site. Ms. Vickers is also a doctoral candidate at the University of North Carolina, Greensboro.

CATHERINE E. MATTHEWS, an associate professor at the University of North Carolina, Greensboro, specializes in K-12 science education. She has a strong interest in natural history and environmental education. Dr. Matthews has written science activity articles for *The American Biology Teacher*, *Science Scope*, *Science & Children*, *The Science Teacher*, and *Science Activities*.

Ms. Vickers working with students around the mini ponds. Tim Martin

Frog in the school's mini pond, illustrating camouflage. Tim Martin

Brandon observing and sketching in his field journal. Valerie Vickers

Whitney and Ellison show off their handmade field journals. Tim Martin

Sarah, Devin, and Maggie sketching in the permaculture garden. Valerie Vickers

Ms. Vickers points out a plant to Whitney (l) and Ellison (r) in the permaculture garden. Tim Martin

Mara makes observations in the garden to put in her journal. Valerie Vickers

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FIGURE 1. SAMPLE POWERPOINT PRESENTATION OF AN ECOLOGICAL ADDRESS.

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[Graphic Character Omitted] Soil and Food	*Agricultural products
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*Horizons of layers of soil	
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*Watersheds	
*Greensboro's reservoirs	
*Greensboro's water problems	
[Graphic Character Omitted] Air and Climate	*Weather movement
*Global warming	
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