

2004

# Free Spirit Children's Nature Center

Sylvia Eugenia Arce

Follow this and additional works at: <http://scholarworks.lib.csusb.edu/etd-project>

 Part of the [Environmental Education Commons](#)

---

## Recommended Citation

Arce, Sylvia Eugenia, "Free Spirit Children's Nature Center" (2004). *Theses Digitization Project*. 2499.  
<http://scholarworks.lib.csusb.edu/etd-project/2499>

This Project is brought to you for free and open access by the John M. Pfau Library at CSUSB ScholarWorks. It has been accepted for inclusion in Theses Digitization Project by an authorized administrator of CSUSB ScholarWorks. For more information, please contact [scholarworks@csusb.edu](mailto:scholarworks@csusb.edu).

FREE SPIRIT CHILDREN'S NATURE CENTER

---

A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

---

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
in  
Education:  
Environmental Education

---

by  
Sylvia Eugenia Arce

June 2004

FREE SPIRIT CHILDREN'S NATURE CENTER

---

A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

---

by  
Sylvia Eugenia Arce  
June 2004

Approved by:

  
Darleen Stoner, Ph.D., First Reader

  
Gary Negin, Ph.D., Second Reader

May 10, 2004  
Date

## ABSTRACT

The blueprint for the creation of the Free Spirit Children's Nature Center has in mind the preservation of a habitat where native fauna and flora can flourish. Along with this, the center will offer naturalist programs that enhance children's understanding and love of nature. The interactive nature of the experiences provided through the programs and activities will offer children a hands-on-approach to learning that is developmentally appropriate.

Free Spirit Children's Nature Center is a vision manifested where both children and nature become teacher and student for each other. People visiting the center will be able to experience the magic and wonder that comes with being in the out-of-doors. Children participating in the programs will gain empathy toward all living creatures while developing their own individuality. The ultimate goal is that children will feel more of a connection to our Earth and be willing to take responsibility in their actions to protect her.

## ACKNOWLEDGMENTS

I would like to thank my friends and family for sharing their love and support with me as I composed my Master's Project. A heartfelt thanks goes to my daughter Catlin, who never complained about the time spent on my degree work. Another special thanks goes to my husband Ramon for always encouraging me to do my best. My heart sings with gratitude to Dr. Stoner, whose guidance and inspiration was an integral part in the completion of my endeavor. I have learned so much from Dr. Stoner and the environmental program. I am grateful for this guiding light.

## TABLE OF CONTENTS

ABSTRACT .....	iii
ACKNOWLEDGMENTS .....	iv
CHAPTER ONE: INTRODUCTION .....	1
CHAPTER TWO: LITERATURE REVIEW	
Environmental and Outdoor Education .....	3
Role of Nature Centers .....	6
Children Ages Three Through Eight .....	8
CHAPTER THREE: VISITS TO NATURE CENTERS	
Moonridge Animal Park .....	11
Louis Robidoux Nature Center .....	16
CHAPTER FOUR: FREE SPIRIT CHILDREN'S NATURE CENTER	
Structural Components .....	20
Naturalist Programs .....	24
First Program Premise .....	24
Second Program Premise .....	27
Third Program Premise .....	29
Fourth Program Premise .....	30
Closing Comments .....	35
REFERENCES .....	36

## CHAPTER ONE

### INTRODUCTION

Education becomes environmental when it increases the understanding of nature, culture, ideas, people, technology, and feelings about the environment (Darleen Stoner, personal communication, October 13, 2000). It is important to act in a responsible manner and to understand the interconnectedness between the environment and ourselves. Thus, this project is based on the future implementation of a program for children that will deepen their environmental awareness and encourage their sense of wonder and magic about the natural world in which they live.

This program will occur in a Children's Nature Center, to be established on the premise of healing our Earth and all of her relations. One of the goals is to enable children to develop a respect for the beauty of "Mother Earth" and thus a desire to take responsible action in protecting her. Another goal is to nurture and support the individuality of children so that they develop an authentic sense of self.

What are the objectives for the Children's Nature Center? The first is for the children to develop a feeling

of empathy toward all living things. The second objective is for the children to freely express themselves through music, dance, drama, and art. They will create various types of crafts and artwork using materials such as scraps to natural objects found in the out-of-doors. The third objective is for the children to participate in "Earth" activities to increase their understanding of the four seasons. This will help to reinforce the idea of the "interconnectedness" with the natural world. The final objective is for the children to learn about and participate in Native American ceremonies. There is much to learn from this sacred way of life.

Justification of this project is simple. Our planet will only survive if younger generations care for Earth and make a difference. Can we expect children to care if they feel no positive connection to nature? Through authentic, multidisciplinary learning experiences, the Children's Nature Center will bring the natural world into the lives of students. As today's youth realize that all living beings need the same things to survive, such as food, shelter, water, and space, they will feel more of a connection to nature and be more willing to take responsibility for their actions.

## CHAPTER TWO

### LITERATURE REVIEW

The review of the literature begins with an overview of the goals of environmental education. To ensure that the programs offered at the Children's Nature Center are effective, an understanding of environmental and outdoor education is necessary. Next, information is presented regarding the role of nature centers. Nature centers are a crucial piece of the reconstruction of the "human" puzzle, in which nature must be an integral piece. Also explored are the characteristics of children ages three through eight. Understanding the developmental stages of young children will guide the selection of activities for use at the nature center.

#### Environmental and Outdoor Education

According to Dr. William Stapp, who was the first to concisely define environmental education (EE) in 1969:

Environmental Education is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution. (p. 30)

The following events gave impetus to the development of EE programs. In October of 1970, President Nixon signed the Environmental Education Act (P.L. 91-516) into law. The Act defined EE as:

...The educational process dealing with man's relationship with his natural and manmade surroundings, and includes the relation of population, conservation, transportation, technology, and urban and regional planning to the total human environment. (North American Association for Environmental Education (NAAEE), para. 50)

In his 1970 environmental message to Congress, President Richard Nixon emphasized the importance of environmental literacy.

It is also vital that our entire society develop a new understanding and a new awareness of man's relation to his environment - what might be called "environmental literacy." This will require the development and teaching of environmental concepts at every point in the educational process. (NAAEE, para. 4)

Frequent contact with nature in the out-of-doors goes hand-in-hand with environmental education. According to Phyllis Ford, outdoor education is defined as:

...education "in", "about", and "for" the out-of-doors. "In" tells us that outdoor education can occur in any outdoor setting from a school yard in an industrial neighborhood to a remote wilderness setting.... "About" explains that the topic is the outdoors itself and the cultural aspects related to the natural environment. You may teach about mathematics, biology, history, art,...but learning occurs through the context of the outdoors. "For" tells us that the purpose of outdoor education is related to implementing the cognitive, psycho-motor, and affective domains of learning for the sake of the ecosystem itself. (1986, para. 3)

There are other aspects in regard to outdoor education.

A prime goal of outdoor education is to teach a commitment to human responsibility for stewardship or care of the land, to treat the land and all its resources with respect at all

times and on all occasions.... Another philosophical belief is that outdoor education is a continual educational experience.... It must be taught at all levels and pursued throughout life. (Ford, 1986, para. 5)

#### Role of Nature Centers

A nature center protects a piece of land that can both inspire and teach. "A nature center is wild land preserved and interpreted for the enjoyment and education of the public. It can provide interpretive services such as outdoor programs in natural sciences, nature study and appreciation, and conservation" (Evans & Chipman-Evans, 1998, p. 37).

The natural beauty of a wild place is often found to be inspiring. People often experience magic and wonder while being out in nature. "A nature center can be more than a natural science center that teaches facts and figures. A nature center can inspire the visitor to develop a humane relationship with all living creatures" (Evans & Chipman-Evans, 1998, p. 120).

The primary role of a nature center has been proposed to re-create a sense of connectedness to nature and

generate healthy communities (Evans & Chipman-Evans, 1998, p. 51).

People in the United States spend between 85 percent and 95 percent of their lives indoors.... The divorce from nature has been so complete, in such a short space of time, that the consequences have been profound. We have reacted precisely the way animals do when they are put in zoos, experiencing aggression, hoarding, neglect and abuse of young, depression and susceptibility to disease. (Evans & Chipman-Evans, 1998, p. 50-51)

Nature centers can complement environmental and outdoor education in serving the educational needs of children. A study done by Simmons identified that 95.3% of nature and environmental education centers serve elementary school groups (as cited in Environmental Education & Training Partnership, 1998, para. 2). Thus nature centers can supplement teachers' lessons by offering hands on experiences that children can only read about in the classroom.

## Children Ages Three Through Eight

When working with young children, it is important to recognize the developmental changes they are going through. It is also necessary to consider how these changes will affect the manner in which educators work with them.

Up until age eight, most children are going through Piaget's preoperational stage of intellectual development. Their principal access to the environment is through direct sensory perception. At this level a planned program of observational experiences involving touching, seeing, hearing, smelling, and tasting would help children develop process skills basic to exploring and understanding the environment. Developing observational skills takes considerable time, perhaps as long as two years, and must not be rushed. (Engleson & Yockers, 1994, p. 71)

Early childhood expert, Ruth Wilson, noted that environmental education in early childhood is strongly supported by the concept that healthy child development depends on healthy interactions with the natural environment (1996, p. 28).

...unless children develop a sense of respect and caring for the natural environment during their early years, they are at risk for never developing such attitudes later in life.

It is important to look at specific aspects of a child's development to understand it better. Children need nature - not only because of a physical dependence - but also because of a psychological and emotional need for interacting with the natural environment (Wilson 1996, p. 28).

Experience in the out-of-doors in early childhood have shown to be effective in developing an environmentally literate person. According to research done by Tanner, respondents

repeatedly attribute their environmental interests or actions to a similar set of sources: extended time spent outdoors in natural settings, often in childhood; parents or other family members; teachers or classes; involvement in environmental organizations; books; and the loss or degradation of a valued place. (as cited in Chawla, 1999, p. 15)

Characteristics of Children and the Implications for Environmental Education, published by the State Department

in Richmond, Virginia in July of 1974 (as cited in Engleson & Yonkers, 1994, p. 160-161) provides an effective guide for nature center activities. Several of the characteristics of children were selected to provide premises for nature center activities described in Chapter four.

## CHAPTER THREE

### VISITS TO NATURE CENTERS

Nature centers are magical places where one can enjoy the beauty of the outdoors along with learning about the inhabitants that live there. The Moonridge Animal Park in Big Bear along with the Louis Robidoux Nature Center in Riverside are exemplary in regards to site and program. Visits to both sites are examined with special mention to programs and physical components that could be models for the proposed children's nature center.

#### Moonridge Animal Park

There is a place of wonder in Big Bear which is refuge to some very special animals. Located in a sub-alpine conifer forest is a 2.5 acre parcel of land which houses over 150 animals representing 85 species, all of whom are well cared for. The Moonridge Animal Park was created from the ashes of the forest fires in 1959 that devastated the ecosystem of the San Bernardino Mountains. Several injured animals were brought to safety for rehabilitation; however, returning to the forest was not an option for some. In 1960, a 50-year lease on the property enabled Moonridge Animal Park to grow into a zoological facility. Notably, Moonridge Animal Park is

distinguished as the only zoological facility in the United States located in an alpine-sub environment and dedicated to the preservation of primarily alpine and sub alpine species.

Educational wildlife programs play a major role at the Moonridge Animal Park. Zoological information is presented in historical context, demonstrating the impact of humans on the well being of wildlife. This is done with the assistance of only non-releasable wildlife that serve as educational ambassadors.

The park's mission statement is as follows: To educate and promote an understanding of alpine wildlife to produce harmony between people and nature. Friends of Moonridge Zoo's (FOMZ) mission is to inspire understanding, respect, and responsible action for wildlife and wildlife habitat through public education, volunteer support, fundraising and development and key project financial support.

The Moonridge Animal Park has served as a source of inspiration for this author since first visiting this sacred ground many years ago. The combination of the beautiful animals living amongst the forest, along with the caring and knowledgeable staff, is exemplary. Several features have been observed at the Moonridge Animal Park

which serve as models in the development of the proposed children's nature center.

There are daily programs offered, along with special programs at the Moonridge Animal Park. It is a wonderful opportunity to see the animals up close when going on the daily feeding tour. Observing the behavior of the animals as they anticipate getting fed can be a significant life experience. Learning what food certain animals like and being witness to the interactions between the keeper and those animals they take care of can bring understanding of the needs of wildlife. The keepers take time to explain interesting facts about the animals being fed which can be an enlightening experience.

Another program done daily is the animal presentation. At noon, one of the keepers brings an animal out onto the grass for everyone to see. There are several benches around the small grassy area where people may sit and listen to the informative talk. The visitor may be able to see and perhaps touch an owl, an eagle, a snake, or a raccoon. What a great opportunity to learn about our wildlife!

The Moonridge Animal Park also participates in the Species Survival Plan (SSP). This is a noteworthy program whereby species conservation is given highest priority.

The SSP was initiated to cooperatively manage and insure the survival of captive populations, listed as endangered and threatened species, for future reintroduction to stable habitats.

There are some exciting educational programs offered at the Moonridge Animal Park. During the summer season there are several zoo camp programs to choose from. The camps run Monday through Friday from 8:00 a.m. to 5:00 p.m. Campers spend three days at the zoo and go off-site the other two days for fun adventures. Zoo camp themes vary, including "Learning about Bears"; "Alpine Environments"; "Reptiles, Amphibians, and Insects"; "Tracks, Scats, and Facts"; and "Learning about Predators and Their Prey."

The Snarls' N Snooze in the Zoo is a family overnight adventure that starts at 6:00 p.m. and ends at 8:00 a.m. Included are a pizza party, nocturnal tour, story time and a continental breakfast. What a magnificent way to learn about nocturnal animals and their habitat!

There is an exciting traveling exhibit that promotes wildlife awareness through presentations using live animal ambassadors. These wildlife ambassadors are transported to multiple off-site programs each week. Children receive an educational program mixed with experiencing animals they

have never seen up close before. They teach understanding and offer a way for the children to experience awesome splendor. These injured animals also help children understand the injuries wildlife can suffer from careless actions by humans. What an enchanting way to learn about the protection and preservation of our wildlife!

The Moonridge Animal Park is located 7,068 feet above sea level in the indigenous, sub-alpine conifer forest. Thus, the park is serving the needs of native animals along with providing educational information about them to all visitors. This creates a sense of community and stewardship for those living in Big Bear and surrounding areas.

Though space is limited, all living quarters are well maintained and clean. The wolves have a spacious exhibit in which they can roam and sunbathe. The site of the grizzly bears has cave like structures where they can hibernate. The birds of prey have a roomy enclosure where they have space to nest or to stretch. The reptiles are in a separate building which is kept warm and protected. There is a retrofitted kitchen and animal care building used to care for the animals.

The physical location of the Moonridge Animal Park is very beautiful, however a bit cramped for space. The park

is scheduled to be relocated by summer of 2006 to the New Living Forest Wildlife Center.

#### Louis Robidoux Nature Center

Located along the unchannelized section of the Santa Ana River in Riverside is the Louis Robidoux Nature Center. The Willow Creek Trail is a half-mile nature trail that highlights some of the plants and animals that have lived in the riparian woodland environment long before modern society began controlling it. The center offers various naturalist programs for both adults and children.

There are a multitude of exquisite educational programs offered at the Robidoux Nature Center; however, focus is on those considered models for the creation of the proposed children's nature center.

Robidoux has a partnership with Peralta Elementary School which is within walking distance. There are grade-appropriate study trips starting at Kindergarten and continuing through sixth grade. Students gain much knowledge about the out-of-doors along with a love and respect for nature. The following is a summary of the junior naturalist programs offered.

Kindergarten: Hike the trail with a naturalist and look at habitat and homes for snakes, birds, squirrels,

frogs and butterflies. Discuss safety rules for the outdoors. Role-play a polliwog life cycle. Snake Program.

Grade 1: Hike the trail with a naturalist and make a class seed collection. Discuss how birds and animals use seeds. How do seeds travel? Look for insects and spiders. Discuss insect life cycles. Meet a crayfish and compare to insects and spiders.

Grade 2: Hike the trail with a naturalist and look for footprints and other animal evidence. Make plaster animal tracks. Look at the river and discuss where the water comes from. Meet the opossum.

Grade 3: Hike the trail with a naturalist and learn how the Native Americans lived here. Make a Native American game to take home. Use grinding stones in the museum to crush seeds. Meet a kingsnake.

Grade 4: Hike along the Santa Ana River. Look for tracks. See where De Anza crossed in 1776, have a plant scavenger hunt, and discuss the water cycle and the importance of water in dry Southern California.

Grade 5: Hike the trail with a naturalist and look for spiders. Look for spider egg sacks. Each team will keep track of how many hunting spiders and how many web spiders they see. Meet a tarantula.

Grade 6: Night hike. Check out the Great Horned Owl. Watch for night creatures and learn how nocturnal animals function. Learn about the apparent motion of stars. Look for some constellations. Say good morning to the opossum.

Grade 6: Creek studies. Hike along the creek and river; discuss pollution and food chains. As a class and in teams measure the flow of the creek, test the dissolved oxygen, pH, and temperature. Catch small creek creatures. Use scopes to study and draw the creek creatures and learn about their adaptations for breathing under water.

The site where the Louis Robidoux Nature Center stands is a majestic place. The trails amongst the riparian woodlands are conducive to nature studies along with creating a serene place. Evidence of animals in their homes is apparent to those nature detectives with a watchful eye.

The structure that houses the nature center museum is spacious and well organized. Upon entering there are exhibits housing snakes, tarantulas, and crayfish used during study programs. There is ample space for students and adults to gather around and participate in the animal presentations. Off to the right there is a large room where students engage in hands-on activities. A back room is used for storage of materials and a place to prepare

the food to be given to the animals. There is an office for the director and a smaller room used as a souvenir shop. Inside are two enclosures used for the opossum, great horned owl, and the hawk. Overall, the set up of the nature center is very efficient and manageable.

## CHAPTER FOUR

### FREE SPIRIT CHILDREN'S NATURE CENTER

The creation of the Free Spirit Children's Nature Center is the fulfillment of a vision culminating from many years of working with children and a life long love for the animal kingdom. Young children possess inherent attitudes of care and compassion for fellow creatures; however their quality of environmental awareness and sense of wonder in the natural world must be supported and encouraged. It has been this author's observation that children learn and retain more when engaged in meaningful hands-on experiences.

Thus, through shared experiences with trusted adults at the Free Spirit Children's Nature Center, children will foster a deep and lasting compassion for Mother Earth and all of her creatures.

#### Structural Components

Helping children fall in love with nature can lift your spirits! Free Spirit Children's Nature Center will be located near a river habitat with ample native flora and fauna. Parking will be provided in a dirt area with large logs designating where to park. The parking area will be well separated from the nature center's fragile areas. The

director's office will be located near the parking area inside a renovated house endowed with charm and character. Inside this building will be access to a bathroom and drinking water. A cozy old fashioned library will be available for those interested in information about local flora and fauna, as well as children's environmental literature. Extra space will be used for storage.

At the entrance of the primary structure will be an aesthetically pleasing sign communicating the concern for the land and what is special about the area. The main building will serve as a gathering place for naturalist programs. This central location will be mainly for presentations and children's hands-on activities. Access to water and restrooms will be provided. In addition, the back room will serve as storage place for art materials and science equipment. Space will also be given for the preparation of food to be fed to the animals.

Domesticated animals along with non-releasable animals shall be an integral component of the Free Spirit Children's Nature Center. Other than in petting zoos, few children ever see animals, and they rarely see them in their natural habitats. Children are the future, and the partnership between them and wildlife will aid in the healing of our past relationships with animals. Children

possess an innate curiosity and compassion which bring us all hope.

There will be a sacred space cleared for the Inipi (Sweat Lodge) and kept with reverence. The Purification Ceremony that takes place inside the sweat lodge serves to connect all of creation, where one acknowledges one's relationship to all living things. Within the lodge exists the opportunity to redress imbalances and receive anew the gift of life. Traditionally, this ceremony of purification precedes all other ceremonies and events of importance; it is also used in healing.

The animal enclosures will be located near the "sacred" area of the Inipi. Exhibits shall be spacious and designed to fit within the native ecosystem. In hopes that the domesticated animals provide a friendly reaction to visitors, enclosures that permit touching and space for animals to burrow will be built.

Along with trailblazing comes the responsibility to the land and to future generations. There was a letter written to President Franklin Pierce in 1854 from Chief Seattle stating:

This we know - the earth does not belong to man, man belongs to the earth.... So, if we sell our land, love it as we've loved it. Care for it as

we've cared for it. Hold in your mind the memory of the land as it is when you take it. And with all your strength, with all your mind, with all your heart, preserve it for your children, and love it...as God loves us all. (as cited in Evans & Chipman-Evans, 1998, p. 185)

Building a trail in a riparian environment, while improving the native habitat and managing native species, is an ultimate goal. Not to be forgotten is the reawakening of the wonder and beauty that touches all of our hearts. The type of trail built will be a nature trail providing an opportunity to walk and study interesting features at one's own pace. Placed at the entrance of the trail will be a sign clearly explaining trail etiquette. There may be a few interpretive stops educating the public without destroying the trail. There will be barriers to discourage entry into fragile areas where birds may be nesting or protected vegetation growing.

One or two bridges will be built, designed with durability, safety, and beauty in mind. A few benches will be camouflaged amongst the trail, providing visitors with a place to rest. Ongoing maintenance, including frequent litter clean-up and immediate cleaning and repairing, will be practiced for the betterment of the nature center. It

is important to remember that we are the guests when visiting nature, and picking up litter helps keep her forever wild.

### Naturalist Programs

The programs offered at the Free Spirit Children's Nature Center will deepen the environmental awareness and encourage the sense of wonder and magic about the natural world in which we live. Programs will be established in accordance with the Characteristics of Children and the Implications for Environmental Education published by the State Department in Richmond, Virginia (as cited in Engleson & Yockers, 1994, p. 160-162). The following premises are based on this listing of characteristics of children.

#### First Program Premise

"Children in the lower elementary grades are curious and employ all their senses in exploring their surroundings. Implications for environmental education would be activities that promote touching, hearing, seeing, and smelling as ways for gathering information about their environment" (Engleson & Yockers, 1994, p. 160). The following are activities that fit this description.

Welcome to Planet Earth! Most humans perceive their surroundings primarily through sight. This unusual nature walk will invite children to discover the world around them using other senses. Pair up children and have one partner be the tour guide first, and explain that after a while they will switch roles. Read the following introductory paragraph to prepare them for their first "sightseeing" tour of Earth.

Close your eyes and imagine that you are an alien from another galaxy. On your home planet there is very little light, so you have come to rely much upon your fingertips, ears and nose to tell you about your surroundings. Over the past year you've been exploring other galaxies and today you are visiting Planet Earth for the first time. You have been greeted by the President and will be given a tour of Earth. But since you cannot see well with your eyes, your tour guide will take you by the hand and let you experience the wonders of Earth using your senses of touch, smell, and hearing.

Have students hold their partner's hand and slowly take the alien on a nature tour while keeping eyes closed. The alien should be encouraged to feel, listen and smell the natural surroundings. Occasionally, have the tour guide position the partner so that he/she can flash a

picture into the brain (open eyes for just a few seconds). After awhile have the partners switch roles. After the tour, ask the aliens to share their most interesting stops.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, pp. 209-210.

Getting to Know a Tree Personally. The following activity helps children become more aware of seasonal changes and how trees adapt throughout the year.

Select a tree in your area to "adopt." Have students observe physical characteristics and record observations in a tree diary. A magnifying glass may be used for detailed observation. In the tree diary, have students write the official date of adoption and have them draw a picture of the tree. Make visits throughout the year, compare observations during seasons, and make an entry in tree journal. Be creative and write poems and stories in your tree journal!

Use your sense of hearing and spread a blanket under the tree's branches. Have children sit and quietly listen with eyes closed. Listen as the wind blows through the trees. Using your ear or a stethoscope, listen to the inside of your tree. You may hear insects chewing wood under its bark.

Use your sense of touch to experience what the tree feels like. Carefully feel the leaves and if there are seeds on the ground, describe how they feel.

Smell the different parts of the tree to find out if they have a scent. Remind students not to taste any part of their tree.

Play this game with students. Have them close their eyes as the teacher places different parts of the adopted tree into their hands. Encourage them to describe how it feels and identify the tree part.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, pp. 142-143.

#### Second Program Premise

"Children in the lower elementary grades begin reasoning simple cause and effect relationships" (Engleson & Yockers, 1994, p. 160). The following activities benefit this description.

Oil and Water Don't Mix. Children can learn about the devastation and difficulty that result from oil spills along the coast. This understanding could be applied to pollution in general. To help students understand how hard it is to remove oil from water, try the following experiment.

Fill a pan with water and pour a small amount of vegetable oil into it and allow children to watch as if it forms an oil slick on the surface. Give them the task of separating the oil from the water as best they can. Offer them materials such as cotton balls, an old towel, large spoons, cornstarch or another absorbent powder, a sponge, etc. When they are done, talk about the possibility of using some of their methods on an actual oil spill. Would they be workable solutions? Did any of your methods do more harm than good? It is important to remember that the effective methods used for cleaning an oil spill also need to leave the environment safe for any wildlife.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, p. 190.

Help! I Can't Get It Off! When animals are entangled in litter, they are completely helpless. Having no fingers or arms makes it very difficult to take off a plastic six-pack ring stuck on their head. The following simple hand exercise will demonstrate to children what it's like to become entangled in litter and unable to get free.

Take a rubber band and loop it around your thumb, stretch it over your hand (not the palm), then loop it around your little finger. Pretend this is a creature entangled in debris. Try to free yourself from the rubber

band without using your other hand or anything else. Attempt to use the fingers on the tangled up hand by twisting or moving it in any way. Children will discover how difficult, if not impossible it is to remove, and feel empathy toward animals found in this situation. Discuss the importance of keeping our Earth free from litter.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, p.186.

### Third Program Premise

"Children in the lower elementary grades enjoy using various art forms and media as means of expressing their ideas and feelings" (Engleson & Yockers, 1999, p. 161). Thus, use of art is very valuable for developing children's knowledge of, and attitudes toward, their environment. The following activities support this premise.

Make Some Fancy Cans. Have students decorate used drums or barrels and place them around the nature center. Adorn them with Earth saving messages and slogans. Create some for litter and others for recyclable items. Every couple of weeks involve the children in collecting the recyclables that can be taken to a recycling center in the community. Money gathered can be used for art supplies.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, p. 234.

Recycle Craft Box. Set up a large box to be filled with treasures that would otherwise end up in the trash. Treasures can be donated by individuals or business organizations. Some things to collect are empty cardboard and plastic containers, paper and poster board scraps, used ribbons and wrapping paper, yarn, discarded silk flowers, etc. Items collected in the recycled craft box are excellent for creative art projects. Allow children's hands, through different mediums, to communicate some of the magical feelings that nature can evoke.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, p. 59.

#### Fourth Program Premise

"Children in the lower elementary grades enjoy listening to stories read to them. Implications for environmental education would be for teachers to help children become interested in the environment, by carefully selecting stories to be read" (Engleson & Yockers, 1994, p. 161). The following are a few examples.

Act Out The Story. After reading *The Great Kapok Tree* by Lynne Cherry, dramatize the story. Choose one child to be the man with the axe resting under the tree. Have the

other children pretend to be the animals of the rain forest and quietly crawl near him and whisper in his ear.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, p. 264.

Stick Puppets. The story, Rain Forest, by Helen Cowcher is very easy to dramatize using stick puppets. Using creativity and imagination, have children draw large pictures of rain forest creatures on scrap poster board or cardboard. Have children decorate with crayons, markers or paint and cut them out. Glue a craft stick onto the back of each puppet.

Activity was adapted from Earth Child 2000 by Sheehan & Waidner, 1998, p. 265.

The sacred ways of the Native Americans carry special meaning for this author and influence all aspects of her life. Native Americans saw themselves as participants in a great natural order of life, relating in some fundamental manner to every other living species. They made a point of observing the other creatures and in modeling their own behavior after them. The following activities will help foster a sense that all creatures deserve respect and a right to live without unnecessary harm.

In the Eyes of a Rattlesnake. Children will go on a fantasy journey as a rattlesnake who encounters a human

being. The goals are to empathize with an animal by seeing the world from its point of view and to understand that human stereotypes of animals are often based on fear.

Teacher will need a copy of the visualization "In the Eyes of a Rattlesnake," rattle, and drum to create the thumping sound of the giant's footsteps.

Start by asking the children how they would feel if they came across a rattlesnake that coiled up and began shaking its rattle. Have them lie on their backs, relax and close their eyes. Tell children they are to imagine being a rattlesnake that meets face to face with a person. Teacher will use a rattle to make the rattlesnake's warning and a drum to imitate the thumping of the giant's footsteps, while reading the story.

The following is the "In the Eyes of a Rattlesnake" visualization. You are a sidewinder rattlesnake basking in the hot, dry desert air in front of a large rock. There are not many plants growing in the dusty, gravelly soil around you.

Your skin is bumpy with sandy-colored scales. You have no arms and legs. A slim tail tapers to a point at the far end of your long, thin body. Your head is flat and triangular from front to back and your eyes are on the top and sides of your head. You can see all around you by

moving your head just a little bit. Almost all of your teeth are small, sharp and curved back. You have two upper fangs that are long, thin and hollow to inject poison when you bite. There is a small hole between each eye and nostril that you use for sensing the body heat of other animals while you are hunting. The end of your tail has eight hard pieces of old skin that join together to form a rattle.

The sun's heat feels good and warms you all over. You are content there, basking. Thump, thump, thump! The ground begins to vibrate with approaching footsteps in the distance. Suddenly, from around a huge boulder, an enormous animal appears. It is one hundred times taller than you are and has strange feet, each with one large toe.

It doesn't notice you. Those giant feet are coming right at you! You look behind to slither away, but the large rock blocks your path. You must defend yourself or risk dying under the giant's feet.

Quickly and smoothly you roll your body into a coil. You raise your head and pull it back, ready to strike. The rattle on your tail begins to vibrate a warning to the stranger. Every muscle in your body becomes tense and alert. You are full of fear.

The giant stranger stops moving, looks down at you and becomes perfectly still. Ever so slowly it backs away until it is a good distance from you. Then in an instant the giant turns and runs away -- THUMP, THUMP, Thump, thump, thump -- until it is gone.

Your body begins to relax as you lower your head and tail, and uncoil a little. Once again you feel the nice warm sun on your body and a sense of peace comes over you.

Have children open their eyes when ready and ask them a few questions relating to their journey. How did it feel to be a rattlesnake? What did you feel when the giant appeared? If rattlesnakes could talk about people, what do you think they would say?

Activity was adapted from Keepers of The Animals by Caduto & Bruchac, 1997, pp. 131-132.

Centering Yourself Through Nature. Find a safe, comfortable place in nature where you can spend at least fifteen minutes. Stand in your special spot and become aware of the earth under your feet and the sun shining on your head. Feel the breeze on your skin. As you hear the sounds of nature, allow them to pass through you, increasing your ability to center. Relax your body as much as you can paying special attention to your knees, stomach, and jaw. Continue breathing and feel your breath

coming up through your body, connecting you with the sun overhead, and going back down through your body connecting you with the earth beneath your feet.

Activity was adapted from A Sun Bear Book Dancing With The Wheel by Bear, Wind & Mulligan, 1991, p.17.

#### Closing Comments

The purpose of the Free Spirit Children's Nature Center is to provide an opportunity for children, who are the future, to develop a respect for the beauty of the natural world and thus a desire to take responsible action in protecting her. Most importantly, programs provided at the center will enable children to freely express themselves through various mediums while they develop an authentic sense of self.

## REFERENCES

- Bear, S., Wind, W., & Mulligan, C. (1991). A sun bear book dancing with the wheel. New York: Simon & Schuster, Inc.
- Caduto, M., & Bruchac, J. (1997). Keepers of the animals. Golden, CO: Fulcrum Publishing.
- Chawla, L. (1999). Life paths into effective environmental action. The Journal of Environmental Education, 31(1), 15-26
- Engleson, D. C., & Yockers, D. H. (1994). A guide to curriculum planning in environmental education. Madison, WI: Wisconsin Department of Public Instruction.
- Environmental Education & Training Partnership. (1998). Environmental education and nature centers. Retrieved February 9, 2004, from <http://www.ag.ohio-state.edu/~eetap/index.html>
- Evans, B., & Chipman-Evans, C. (1998). How to create and nurture a nature center in your community. Austin, TX: University of Texas Press.
- Ford, P. (1986). Outdoor education: Definition and philosophy. Retrieved March 23, 2004, from <http://www.ericfacility.net/ericdigests/ed267941.html>
- North American Association for Environmental Education. (n.d.). Perspectives-foundations of environmental education. Retrieved January 30, 2004, from <http://eelink.net/perspectives-foundationsofee.html>
- Sheehan, K., & Waidner, M. (1998). Earth child 2000. Tulsa, OK: Council Oak Books.
- Stapp, W. B., et al. (1969). The concept of environmental education. Journal of Environmental Education, 1(1), 30-31.
- Wilson, R. (1996). Environmental education programs for preschool children. The Journal of Environmental Education, 27(4), 28-33.