

# Nature-al Discoveries

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## **The Problem: Nature-Deficit Disorder**

We have entered a technological era in which society is dependent upon things that plug in and instant meals, and our children are being held hostage by video games and television programs. As technology advances, society's primal instincts diminish. Our children no longer spend entire days outside exploring the forests and building structures. They don't know how to climb trees, build a campfire or a shelter, track animals, or even to sit quietly and do nothing but observe the wonders of nature. Today's children suffer from what Richard Louv terms "Nature Deficit Disorder." It is a phenomenon that illustrates children's pervasive draw toward technology and away from nature, leading to sedentary and antisocial lifestyles. Louv believes that the future of our planet depends greatly on the steps we take now to teach our children how to be good stewards of nature and help take care of it.

As a result, congress has taken steps to address the nature deficiency that is plaguing these technologically advanced times. The No Child Left Inside Act of 2009 (S. 866) is a bill to amend the Elementary and Secondary Education Act of 1965 regarding environmental education. It was recently introduced to congress and referred to committee. It currently awaits report by committee, Senate vote, House vote and the president's signature.

## **The Solution: Nature-al Discoveries Program**

### **Goals**

- **SHORT-TERM GOALS:**
  - Promote outdoor environmental activities as part of the regular school curriculum and schedule in order to further the knowledge and professional development of teachers and help students directly experience nature.
  - Incorporate field experiences that contribute to healthy lifestyles through outdoor recreation and sound nutrition
  - Create opportunities for enhanced and on-going professional development for teachers to improve teachers' environmental subject matter knowledge and pedagogical skills in teaching about environmental issues, including the use of interdisciplinary, field-based, and research-based learning and innovative technology in the classroom.
- **LONG-TERM GOALS:**
  - Establish an environmental literacy plan (Understand, analyze & address major environmental issues in Frederick County, Maryland, and the U.S.)
  - Establish and operate programs that bring teachers into contact with working professionals in environmental fields to expand such teachers' subject matter knowledge of, and research in, environmental issues.

- Establish and operate environmental education summer workshops/institutes for teachers to improve their pedagogical skills and subject matter knowledge for the teaching of environmental education
- Design programs that prepare teachers at other schools to provide mentoring and professional development to their peers so that they may improve their pedagogical skills and subject matter knowledge for the teaching of environmental education

## **Methods/Activities**

### **Preparatory Activities**

- Weather Preparedness Kits (Homemade Rain Ponchos)
- Letter to parents requesting galoshes, snow boots, and water shoes as needed for walks
- Discovery Tool Kits (tweezers, bug container, net, magnifying lens, mesh bag/pocket for found objects... all on tool belt)  
(also for sale to parents)

### **10 Themed Discovery Walks (per classroom)**

**SEP**

1. Nature-al Discoveries
  - Textures and Colors: Art in nature (nature-al quilt)
  - Finding your 'sit spot'
  - Critter Scavenger Hunt
  - Classroom habitats
  - Weather Changes: Summer to Fall
2. Habitats
  - Habitats (water, trees, forest floor (logs, rocks, leaf litter)
  - bat house, mason bee home
  - Birds: houses, baths, feeders & nesting materials
  - Camouflage
  - Weather Changes: Fall

**OCT**

3. Rocks
  - Hard rocks
  - Soft rocks
  - Liquid rock
  - Edible rock
  - Rock collecting and polishing

**NOV**

**DEC**

4. Hibernation & Relocation
  - Bird migration
  - Mammal & reptile hibernation
  - Plant/tree dormancy
  - Foraging and storing food for the winter (people & animals)
    - Dehydrating foods
    - Canning food

**JAN**

5. Music in Nature
  - Maracas (rocks & hollow branches)
  - Drums (hollowed logs, bark)
  - Rhythm sticks

**FEB**

6. Loving our Planet: Reduce, Reuse, Recycle
  - What can we recycle? How do we know?
  - Setting up a Recycling Center
  - How can we reuse things from our recycling center?
  - Conservation (water, electricity)
  - Composting
  - Rain Barrels

**MAR**

7. Living in Nature
  - Camping
  - Navigation (compass, stars, landmarks, map-making)
  - Cooking
  - Cleaning (body/clothing)
  - Environmental responsibility/Leave nothing behind
  - Nature-al Construction (blinds, dams, forts)

**APR**

8. Metamorphosis
  - What is metamorphosis?
  - Butterflies (for each classroom)
  - Ladybugs
  - frogs

**MAY**

9. Plants and Trees
  - Tree Identification (leaf/bark)
  - Rain Gardens
  - Rainbow Vegetable Garden
  - Pumpkin Patch

## **SUMMER PROGRAMS**

### **WEEK ONE**

#### **Habitats**

- Water
- Ground
- Trees
- Rock
- Manmade

### **WEEK TWO**

#### **Living in Nature**

- Food
  - Gardening
  - Grilling
  - Campfire cooking
- Water
  - Rain barrels & water purification
  - Bathing
  - Washing clothes
- Shelter
  - Pole Tents & Stick/blanket Tents
  - Wood shelters
  - Mud brick shelters
- Extras
  - Harvesting seeds
  - Soapmaking
  - Cleaning Supplies
  - Wool dyeing

### **WEEK THREE**

#### **Music in Nature**

- Drums (hollowed logs and animal hides)
- Maracas (seeds & shells/bamboo)
- Rhythm Sticks (sticks)
- Whistles (blades of grass, bamboo)

### **WEEK FOUR**

#### **Nature-al Art and Photography**

- Collage
- Sculpture
- Black & White / Color Photography
- Paintings inspired by nature

## **WEEK FIVE**

### **Loving our Earth: Reduce, Reuse, Recycle**

- The Dump
- Recycling
- Creative Reuse of materials
- Conservation (water, power, paper supplies)

## **WEEK SIX**

### **Creek Study (Catoctin Creek & Broad Run Creek)**

- Aquatic life
  - Crayfish
  - Tadpoles
  - Minnows
  - Water striders
- Creekside Plants and Critters
- Dam building
- Water Play

## **WEEK SEVEN**

### **Wild Safari**

- Animals around the world
- Animals in Maryland
- Animal Tracks
- Animal Safari Scavenger Hunt
- Animal Patterns & Textures

## **WEEK EIGHT**

### **Insects, Arachnids & Reptiles**

- Everyone has an important job! (bees, ants, worms, ladybugs, Mantises, spiders)
- Beautiful Spiders
  - Why do spiders weave webs?
    - Tunnel Webs
    - Webs in the grass
    - Spiral Webs
    - Some spiders don't weave webs at all!
- Why are snakes important?
  - Snakes around the world
  - Snakes in Maryland
  - What do snakes eat?
  - Where do they live?
  - What do snakes shed their skin?

## DISCOVERY REINFORCEMENT ACTIVITIES

### **Classroom Habitats**

Fish Tank for Lobby

- Temperate woodland habitats for every room
- Rain forest (as needed)
- Desert Habitat (as needed)

### **Families in Nature Club (\$120 per family, per year or \$10.00/month)**

*FAN Club (Families Appreciating Nature)*

Membership Includes:

- Four guided family nature walks (Nov, Jan, Mar, May)
- One Family Creek Day (July)
- One Family Campfire Cookout (August)
- T-Shirt (1 per family member)

**Nature-al Connections** (trails are open to ELC families for SELF-GUIDED walks every Friday from 3:30pm until sunset – must be scheduled ahead of time)

**Homeschooler Discovery Walks** (advertise Nature-al Discoveries program with local umbrella groups)

**Discovery Walk Field Trips** (invite other schools/agencies to have field trips to ELC for guided nature walks)

**Team-Building/Corporate Events** (invite professionals to schedule team-building events at ELC with guided nature walks and activities.

**Evaluation** (Action Research –Angela/Sue)

### **Dissemination**

- Articles and advertisements in Frederick's Child
- Reminders in Weekly Weeder
- Nature-al Discoveries monthly newsletter
- Hallway displays
- FNP
- Announcements/solicitations to area schools/centers/groups
- ECE Fairs & Festivals
- Booth at conferences

## **Key Personnel**

Program Supervisor: Sue Mogard, M.S.; Educare Learning Center

Program Director & Coordinator: Angela Furlong, M.S.; Educare Learning Center

Program Consultants:

Stephanie Buzzo – Director, Audubon Preschool  
Marion Bundens, Certified Naturalist

## **Facilities**

Educare Learning Center's 22-acre wooded site offers the perfect backdrop for a diverse nature program encompassing numerous habitats and a wide array of flora and fauna to investigate.

## **ATTACHMENTS**

**ATTACHMENT A:** Maryland Children's Outdoor Bill of Rights

**ATTACHMENT B:** s. 866 Maryland No Child Left Inside Act of 2009

**ATTACHMENT C:** EO Maryland Partnership for Children in Nature

**ATTACHMENT D:** Families in Nature Club Guide

Additional Reference: Elementary and Secondary Education Act of 1965 ([www.ED.gov](http://www.ED.gov))

# Proposal Approval

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Kim Rokos, B.S.  
Chief Financial Officer

CONCUR / DO NOT CONCUR

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Mary Janson  
Director, Educare Learning Center

CONCUR / DO NOT CONCUR

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Janice Czeh  
Program Administrator, Educare Learning Center

CONCUR / DO NOT CONCUR

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Sue Mogard, M.S.  
Owner, Educare Learning Center

APPROVED / DISAPPROVED