

# Dunes Learning Center



*“Where Nature Nurtures Knowledge”*

## Frog in the Bog

## Student Journal

(Fall 2007)

# Welcome from the Dunes Learning Center

You are going to be visiting the Dunes Learning Center and the Indiana Dunes National Lakeshore soon and your trip will be a special experience. The data, ideas, questions, feelings, and reactions that you record in your Student Journal will help you remember your experiences for yourself and your family and to share them with other young people who may visit the Dunes Learning Center and the Indiana Dunes National Lakeshore in the future.

Please make this Student Journal your own. Decorate the front cover. Put your name on it. Be creative.

Each season brings many changes to the Indian Dunes and to the outdoor environment all around you. Watch for the changes that happen at this time of year. Try to notice any signs of the oncoming season and other wonders of the area. Find out what time the sun rises and sets each day for a week. Investigate what is happening to the length of daylight each day.

We look forward to a great adventure with you.

The Dunes Learning Center Staff

## **What to Bring:**

1 small backpack  
2 plastic 1-liter water bottles (can be emptied pop bottles)  
Dunes Learning Center Student Journal  
2 sharpened pencils  
1 poncho or raincoat (winter coat if appropriate)  
1 hat (appropriate for season)  
warm gloves, scarf, etc. for cooler temperatures  
4-5 pairs of socks  
2 extra sweaters or sweatshirts  
2-3 shirts (at least one long-sleeved)  
3 pairs of long pants  
shoes that can get muddy  
extra shoes and a bag for the wet ones  
rubber boots (if possible)  
pajamas  
sunscreen  
insect repellent  
lip protectant (ChapStick, Blistex, etc.)  
1-2 towels and washcloth  
soap, toothbrush, toothpaste  
comb or brush  
drinking cup  
sleeping bag or rolled up blankets and pillow  
extra plastic bags for wet shoes and dirty clothes

Prepare for all types of weather. It can be warm, cold, windy, rainy, sunny or snowy at the National Lakeshore in the fall.

## **Optional items:**

camera  
binoculars  
reading books

## **Do not bring:**

candy, gum, snacks, knives, radios, tape players, video games, or electric appliances.

## The Most Interesting Place

On this page, draw the most interesting place in the world.



Discuss the reasons you chose this place with another student.

Write two reasons why you chose this place:

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Indiana Dunes National Lakeshore is a National Park. This means that it was set aside by the Congress of the United States for the American people. Everyone in the United States of America owns all of the land in the National Lakeshore and everything in it.

Answer this question:

Why do you think we have National Parks?

## **Familiar place**

On this page, draw a place that is familiar to you. This should be a place outdoors, near your school or home that you see almost every day. Draw it now, from memory.



Go visit this place. Add any details you notice. Write down three things you added:

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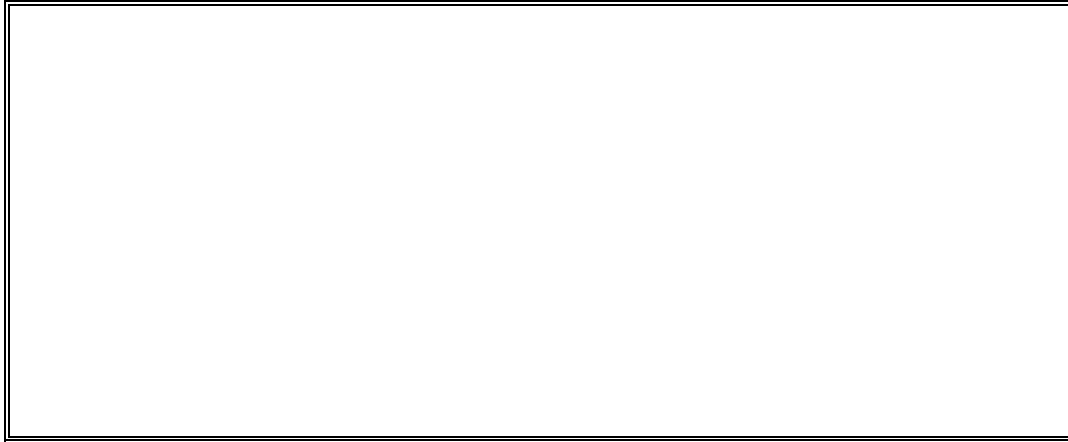
## Choose an organism

The two lists include plants and animals that you might see during your field trip to Indiana Dunes National Lakeshore. If you don't actually see them, you may see tracks or other signs. Choose **one** of these organisms to learn about.

- Black Oak
- Sassafras
- Sugar Maple
- Black Cherry
- Yellow Birch
- White/Paper Birch
- Serviceberry
- Ironwood
- Witch Hazel
- American Beech
- Jack Pine
- Cottonwood
- White Pine
- Red Maple
- Willow
- Blueberry
- Cattail
- Marram Grass
- Little Bluestem
- Sensitive Fern
- May Apple
- Garlic Mustard
- Phragmites
- Russian Olive
- Oriental Bittersweet
- Sand Cherry
- Prickly Pear Cactus
- Poison Ivy
- Hop Tree
- Arctic Bearberry
- Scouring Rush/Horsetail
- Lupine
- Skunk Cabbage
- Red Fox
- White-Tailed Deer
- Raccoon
- Fox Squirrel
- Indiana Bat
- Red Squirrel
- Gray Squirrel
- Beaver
- Cottontail Rabbit
- White-Footed Deer Mouse
- Short-Tailed Shrew
- Coyote
- Northern Cardinal
- White-Breasted Nuthatch
- Muskrat
- Red-Winged Blackbird
- Gray Catbird
- Ring-Billed Gull
- American Crow
- Black-Capped Chickadee
- Red-Tailed Hawk
- Canada Goose
- Great Blue Heron
- Red-Bellied Woodpecker
- Coopers Hawk
- Six-Lined Racerunner
- Hognose Snake
- Garter Snake
- Fowler's Toad
- Green Frog
- Spring Peeper
- Red Backed Salamander
- Karner Blue Butterfly

Find out the following about the organism you chose:

1) What does it look like? Draw a picture here:



2) How big is it?

3) What kind of places should you look for it?

4) Circle the name of the ecosystem or ecosystems at the National Lakeshore where you think you will find your organism.

Eastern Deciduous Forest

Wetland

Oak Savannah Woodland

Foredune

Open Beach

5) If you don't find the organism itself, what evidence could you find that would prove it had been there?

6) Find out one especially interesting thing about your organism. You will be asked to share this information when you actually see the organism or find evidence that it has visited a place.

7) Is your organism an "invasive species?"



## Walk Through Time Discussion Questions:

1. Each group of people might have used the Little Calumet River for different purposes. Explain how each group might have used the Little Calumet River for their own use.
2. How did each group of people's lives change in the seasons? What chores and activities would people have to do during the season of your visit?
3. Which group or groups of people needed the land and its resources to survive?
4. Which group of people do you think valued the land the most and why?
5. How do we view and use the land today?

# What will the National Lakeshore be like?

Discuss these questions with your group. Make your own predictions and record them on your chart.

## Wind Speed:

Which ecosystem will be the windiest? \_\_\_\_\_

Which ecosystem will have the least wind? \_\_\_\_\_

## Temperature:

Which ecosystem will have the highest air temperature? \_\_\_\_\_

Which ecosystem will have the greatest difference between air temperature and soil surface temperature? \_\_\_\_\_

## How Long Does a Puddle Last?

Which ecosystem will have soil that absorbs water the slowest? \_\_\_\_\_

Which ecosystem would have the longest lasting puddles? \_\_\_\_\_

## Plants and Animals:

It is very difficult to study plant and animal diversity in a short period of time.

In which ecosystem or ecosystems do you think you would find the organism you have studied? \_\_\_\_\_

What other organism or organisms does your plant or animal associate with?

\_\_\_\_\_

## Ecosystem Investigation Chart

<b>Ecosystem</b>	<b>Eastern Deciduous Forest</b>	<b>Wetland</b>	<b>Oak Savannah</b>	<b>Foredune</b>	<b>Open Beach</b>
<b>Date</b>					
<b>Time</b>					
<b>Sky Conditions:</b> Clouds, Precipitation					
<b>Windspeed:</b> Beaufort Scale					
<b>Temperature:</b> Air 1 m Above Soil					
Soil Surface					
Underground					
Water (if available)					
<b>Soil Samples</b>					
<b>How long does a puddle last?</b>					
<b>Plant Diversity:</b> Describe the canopy and understory plants here.					
<b>Animal Diversity:</b> List any animals or animal signs you see here.					

## **Ecosystem Drawings and Descriptions**

**Eastern Deciduous Forest**



**Wetland**

**Oak Savannah**

**Foredune**

**Open Beach**



## **A Few Minutes Alone**

You will have about 10 minutes to sit quietly by yourself. You will be able to see the rest of the group and everyone will be as quiet as possible.

**Look** around you. Look closely at the ground. Look far away and up to the sky.

**Listen** to all the sounds. Try to pinpoint a certain sound and figure out where it is coming from. How far away is the source? How many different sounds can you hear?

**Smell** the air. Are there smells you recognize? Is there an interesting smell, or one you don't like?

**Feel** things beneath you: what your feet touch or what you are sitting on. Touch some things with your fingers: soil, a plant, your clothes.

**On the next page, write or draw** about some of these things you have observed. Choose the things you want to remember.

**A Few Minutes Alone**

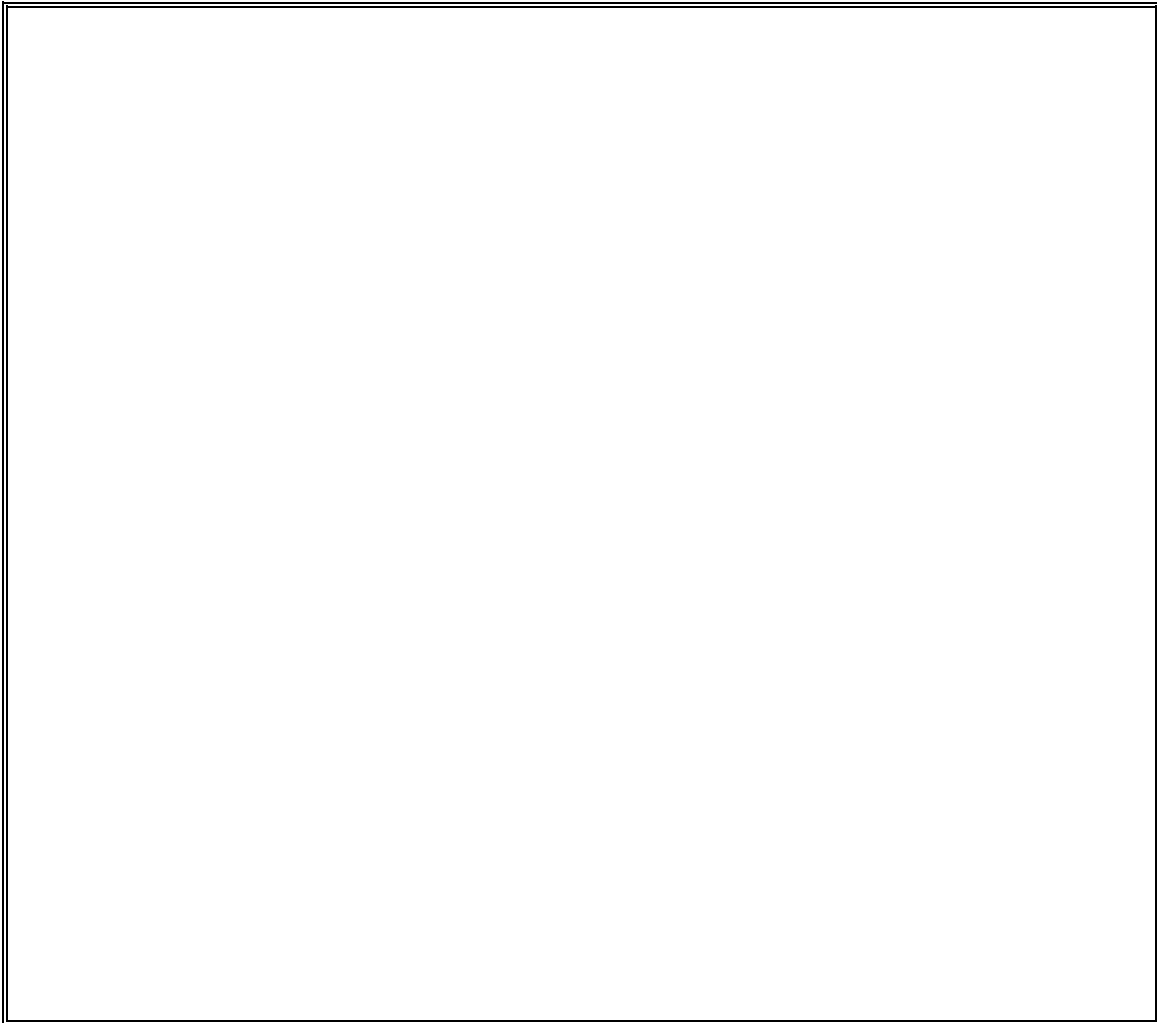
## What happened today?

Date: \_\_\_\_\_  
(day 1)

Things you might want to include:

- new experiences
- people you met
- a game you played
- animals or plants you saw
- what you really liked
- what you really didn't like
- things you wish were different
- things you hope to do tomorrow

Draw, write, or sketch



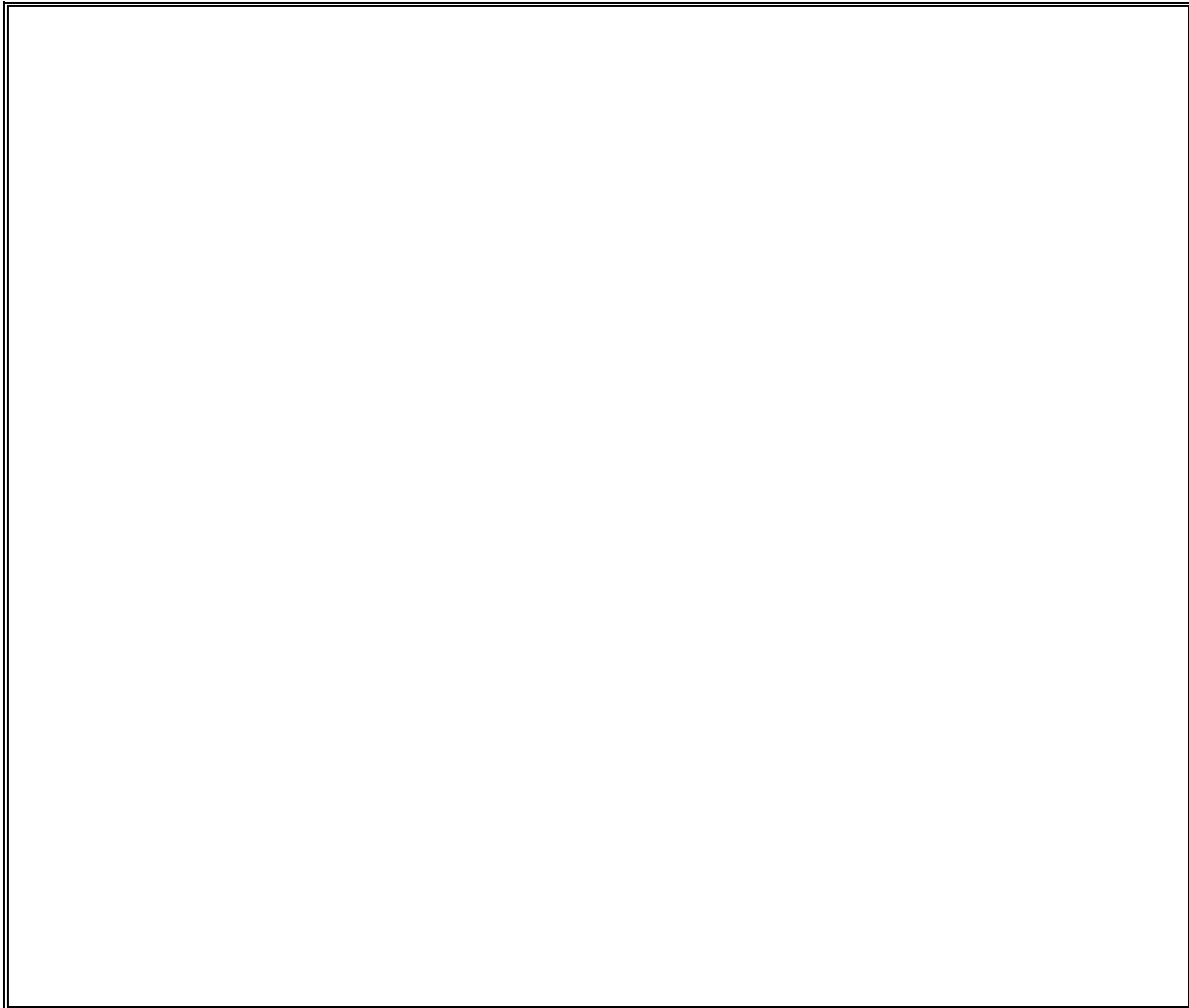
## What happened today?

Date: \_\_\_\_\_  
(day 2)

Things you might want to include:

- new experiences
- people you met
- a game you played
- animals or plants you saw
- what you really liked
- what you really didn't like
- things you wish were different
- things you hope to do again someday

Draw, write, or sketch



# You have the power to change the world

Just about everything you do has an effect on the environment. More and more kids all over the world are doing positive things for the environment. You can be sure that when millions of kids all start to do things for the environment, the entire world will notice. So what are you going to do?

Here are some ideas you can start with at your own home.

## Cut down your use of energy

- Turn off electric lights and appliances when no one is in a room.
- Keep windows and doors closed when heating or cooling your house.
- Turn down the heat at night or when no one is at home.
- Decide what you want from the refrigerator before you open it.
- Encourage your family to use fluorescent or compact fluorescent light bulbs. They use less energy and last ten times longer than most incandescents.
- When you boil water on the stove, leave the lid on the pot.

## Watch your use of water

- Take shorter showers (five minutes or less).
- Turn off the faucet while brushing your teeth and while washing dishes.
- Fill the dishwasher full before running.
- Turn off faucets all the way, and report any leaky faucets.
- Place a plastic jug filled with water in your toilet tank to reduce the amount of fresh water that goes down the drain each time you flush. Your parents can help you with this.
- Don't pour unknown chemicals or hazardous chemicals down the drain.

## Cut down your amount of trash.

You can do this by *Reducing, Reusing, and Recycling*.

- Don't litter!
- Buy things with less packaging.
- Check the labels of products and try to buy things that are made from recycled materials (rather than materials that can be recycled).
- Avoid materials that cannot be recycled (aerosol cans, juice boxes, Lunchables, styrofoam, etc.).
- If only buying one or two things, carry them in your hands instead of getting a bag.
- Reuse shopping bags. Even better than that, use a cloth bag.
- Pack your lunch in a reusable container, and even put your sandwich and snacks in reusable containers.

- Reuse things creatively. Make things out of things you might otherwise throw away. For example, make a flowerpot out of an old milk jug. Old clothes could make nice cleaning rags. You could decorate an old shoebox and use it to store things or wrap presents in. Newspapers can be used as wrapping paper.
- Use all sides of paper before recycling it.
- Recycle anything you can't reuse, such as: Aluminum (cans and foil), steel, tin, paper (newspaper, office paper, telephone books, magazines, etc.), cardboard, plastics, glass, and motor oil. If your town doesn't pick up recyclables, have an adult help you look in the phone book to figure out where you can take them.
- Recycle your old clothes by giving them to a friend or a needy person. You can donate various items to Goodwill or any other place similar to that in your area.

### **Save plants and animals**

- Don't feed wild animals.
- Don't buy products tested on animals.
- Treat all living things with respect.
- Don't pick or trample on plants.

### **Transportation**

- Carpool when possible.
- Combine several errands at once.
- Walk, bike, skate, or take the bus.
- Ask adults to keep their cars in shape to minimize polluting effects.

### **More ideas for eco-friendly living**

- Plant a tree.
- Clean up a street or park (get permission first).
- Compost.
- Buy organic and locally grown foods.
- Try to buy foods in season.
- Join an environmental group.
- Don't buy products from companies that are not environmentally responsible.

**Share this information with your friends and family.**