| **Indiana Dunes**  **Education** | National Park Service  U.S. Department of the Interior  **Indiana Dunes National Lakeshore**  **Education Department** | National Park Service Logo |
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**Habitats Hike**

**Summary:**

Discover why Indiana Dunes has one of the largest diversity of plant species in the National Park System. Explore many habitats, such as open dunes, forested dunes,wetlands or oak savannas that support rare species and this abundance of life.

**Objectives:** students will be able to

1. Describe 3 different habitats from general physical characteristics such as light, temperature and moisture and why this matters regarding what flora and fauna are found there.
2. Explain why the loss of habitat is endagering some plants and animals.
3. Observe and describe the diversity of living things in the habitats.
4. Have the opportunity to describe, draw or wite about the solitude and beauty of ….the habitats.



**What to expect on during your trip:**

This outdoor program will lead you on a trail through three to four different habitats. Offered at Kemil Beach or the Douglas Center.

**Setting:**

The Dune Ridge Trail meanders through fore dunes, a wetland and the beach is accessible. The Miller Woods trail takes you through a rare fire-dependent oak savannah.

**Grade:**

4th – 12th grade.

**Ratio of students to ranger:**

No more than 30 to 1 is requested. We will accommodate larger groups within reason with the teacher’s assistance.

**Safety Issues:**

Exposure to weather, poison ivy and ticks. The hike is easy to moderate at Miller Woods and moderate to strenuous at Dune Ridge.

**Background Information:**

People and other animals share some basic needs.

The environment in which an animal lives is called “habitat”. An animals’ habitat includes food, water, shelter, and space.

If any of these components are missing or altered there may be an impact on the local animal population. Other factors, which can have an impact, are disease, predation, pollution, accidents, and climatic conditions.

**Prerequisite Classroom Activities:**

Prior to your visit to the Indiana Dunes National Lakeshore we suggest that you read over the following activities and incorporate them into your classroom teaching before or after your visit.

Materials:

Paper for recording habitat components, cards for identifying habitat needs and habitat at home.

Activities:

1. Split class into groups and have them identify habitat needs (food, water, shelter, space, and arrangement) for any five wild animals

2. Have each student describe his or her habitat at home.

3. Play charades with students acting out habitat components from activity number one. When all five components are identified, see who can guess the animal.

**Vocabulary:**

***Habitat***: The place or region tha a plant or animal normaly lives.

***Community:*** All the plants and animals living in a particular area.

***Species***: Any group of plants or animals that posess similar anatomical characteristics and have the ability to interbreed.

***Diversity***:Showing a difference, not being the same, having variety***.***

***Percolation****:*Usually a liquid passing through a porous substance or substrate

**Illinois Content Standards:**

The Habitat Hike program can assist teachers in meeting the following Illinois standards

Early Elementary

11.A.1a Describe an observed event.

11.A.1b Develop questions on scientific topics.

11.A.1c Collect data for investigations using measuring instruments and technologies.

11.A.1d Record and store data using available technologies

11.A.1f Compare observations of individual and group results.

12.B.1a Describe and compare characteristics of living things in relationship to their environments.

12.B.1b Describe how living things depend on one another for survival.

Late Elementary

11.A.2b Collect data for investigations using scientific process skills including observing, estimating and measuring.

11.A.2d Use data to produce reasonable explanations.

12.A.2a Describe simple life cycles of plants and animals and the similarities and differences in their offspring.

12.B.2a Describe relationships among various organisms in their environments (e.g., predator/prey, parasite/host, food chains and food webs).

12.B.2b Identify physical features of plants and animals that help them live in different environments (e.g., specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).

Middle/Junior High School

11.A.3c Collect and record data accurately using consistent measuring and recording techniques and media.

11.A.3f Interpret and represent results of analysis to produce findings.

12.B.3a Identify and classify biotic and abiotic factors in an environment that affect population density, habitat and placement of organisms in an energy pyramid.

12.B.3b Compare and assess features of organisms for their adaptive, competitive and survival potential (e.g., appendages, reproductive rates, camouflage, defensive structures).

**Extension or Follow-up Activity**

Class reflection paper or writing sample:

Ask each student to write a short essay, letter or story about what they learned on their field trip to Indiana Dunes National Lakeshore. Rangers love receiving mail from their students. Send the ranger the packet of essays from your class (or a copy of them), and your ranger will send your class a certificate from the dunes. Send your essays to:

Indiana Dunes National Lakeshore

1100 N. Mineral Springs Road

Porter, IN 46304

Attn: Your ranger’s name or just Education Department

If you are using this essay as a class assignment for a grade, we would like to suggest that each essay contain the following elements. Use the rubric below to score them.

\* The name of the park and the location of their field trip—for example: Douglas Center, Indiana Dunes National Lakeshore

\* Three facts they learned on the field trip about the habitats of the dunes.

\* A brief explanation of why Indiana Dunes is unique and therefore a national park.

\* At least two things the student can do to help take care of his or her national park.

\* Fill in the blank of this statement and provide an explanation:

I would like to learn more about \_\_\_\_\_\_\_\_\_\_ at Indiana Dunes.

\*\*\* For advanced groups, add the following element:

Tell the park rangers if you would like to bring your families and friends to the dunes and if so what would you do here and where would you go.

**Assessment:**

**Grading for Class reflection writing assignment:**

1. **Writing and organization**- ***4 points*** the writing sample is very well written and organized by the elements provided. It has a strong introduction, middle and conclusion. ***3 points*** the writing sample is well written and organized by the elements provided. It includes an introduction, middle and conclusion. ***2 points*** the writing sample is choppy and is not well organized. It lacks an introduction or conclusion. ***1 point***the writing sample is very short and unorganized.
2. **Grammar & Spelling-** ***4 points*** Mistakes in spelling and grammar are minor or non-existent. ***3 points*** Mistakes in spelling and grammar are minimal—about 4-5. ***2 points*** mistakes in spelling and grammar are numerous—5-10. ***1 point*** mistakes in spelling and grammar are more than 10.
3. **Facts and content**- ***4 points*** the writing sample demonstrates the student’s learning on the dunes program and includes three or more facts provided by the park staff. ***3 points*** the writing sample demonstrates the student’s learning and includes only two facts provided by the park staff. ***2 points*** the writing sample does not demonstrate much learning and only includes one fact provided by the park staff.***1 point*** the writing sample does not demonstrate any learning and does not include any facts provided by the park staff.
4. **National Park Service theme** - ***4 points*** the writing sample clearly demonstrates the student’s understanding of the role of the NPS in preserving the dunes by explaining why Indiana Dunes is such a unique treasure.***3 points*** the writing sample mentions the NPS and its role in preserving the Indiana Dunes. ***2 points*** the writing sample mentions the NPS and Indiana Dunes. ***1 point*** the writing sample does not mention anything about the NPS or its role at Indiana Dunes.
5. **Stewardship-** ***4 points*** the writing sample lists three things the student can do to assist in taking care of the Indiana Dunes. ***3 points*** the writing sample lists two things the student can do to assist in taking care of the Indiana Dunes. ***2 points*** the writing sample lists one thing the student can do to assist in taking care of the Indiana Dunes. ***1 point*** the writing sample does not list anything about what the student can do to take care of the Indiana Dunes.