

Wildlife Prairie State Park

Our Sense-sational World

Teacher's Packet

Grades: Pre-K

Abstract

Although our senses are adequate for our survival, they would be of little use to the animals in the Park. These animals have had to develop a particular sense, or group of senses far beyond the limits of our own. We will compare and contrast how humans and animals use their senses to survive.

Addresses State Goal Requirements for Education



- Goal 5B** *Students will use the language arts to acquire, assess and communicate information*
- Goal 11** *Students will understand the process of scientific inquiry and technological design to investigate questions, conduct experiments, and solve problems.*
- Goal 12A** *Students will know and apply concepts that explain how living things function, adapt and change.*
- Goal 19B** *Analyze various movement concepts and applications.*
- Goal 4A** *Listen effectively in formal and informal situations.*
- Goal 5A** *Locate, organize, and use information from various sources to answer questions, solve problems and communicate ideas.*
- Goal 10 A,B** *Organize, describe and make predictions from existing data.*

Objectives

- The students will observe how animals use their specialized senses to detect prey and avoid predation.
- The students will observe various mechanisms of plants that are observable by seeing, touching and smelling.
- The students will recognize the importance of using their senses when observing nature.

The goal of environmental education programs at Wildlife Prairie State Park is to help students become environmentally knowledgeable, skilled, and dedicated citizens who are willing to work individually and collectively, toward achieving and maintaining a dynamic equilibrium between the quality of life and the quality of the environment.

STUDENT PREPARATION

Before coming to Wildlife Prairie State Park, please familiarize your class with the following vocabulary words. In addition, students should participate in at least one pre-trip activity.

- 1) **senses**-The five faculties which send information to the brain.
- 2) **sight**-The ability to receive visual information from the eyes.
- 3) **smell**-The ability to receive olfactory information from the nose.
- 4) **touch**-The ability to receive information from the nerve receptors in the skin.
- 5) **hear**-The ability to perceive sounds with the ears.
- 6) **taste**-The ability to receive flavor information with the taste buds on your tongue.
- 7) **texture**-The physical characteristics that can be detected through the sense of touch.
- 8) **habitat/environment**-The area where an animal or plant lives and obtains food, water, shelter, and living space.
- 9) **adaptation**-The modification of a species' behavior or a change in one of its physical features that helps it survive in a changing environment.
- 10) **olfactory**-Pertaining to the sense of smell.
- 11) **auditory**-Pertaining to the sense of hearing.

**Wildlife Prairie State Park
Our Sense-sational World**

**Pre-trip Activity
Also meets Math Goal # 6**

Sense Graphing

Words you can use

graph
chart
record
sense
see
see
hear
taste
touch
smell

Things you will need

Crayons

white poster board-
24" x 36" covered with
clear contact paper

pictures of the parts of
the body that are
associated with the five
senses






Adapted with
permission from
Mudpies to Magnets,
R. Williams, R.
Rockwell, E. Sherwood,
1987 pg. 35
Gryphon House, Inc.,
Box 207
Beltsville, MD 20704

Graphing is an important concept that children will learn as they are exposed to beginning math. It is a visual way for children to quantify, compare, and organize. A very concrete way to teach graphing is to relate to something all children use – their senses!

What to do

1. Discuss the five senses with the children. Explain that the senses work together to give a complete picture of something.
2. Make 5 columns on the poster board. Then draw a line the entire width of the board to provide a box for each sense.
3. Draw or cut out pictures below, of the body parts that signify a sense and attach these pictures to the top of the graph; one sense for each box.
4. Give the children a list of various things they use their senses to experience. Have them tell which sense they use to experience this. Example: *Rain, thunder, lightning, a flower, food, fireworks, perfume, cold, dirt, cloth, a pine tree, a rainbow, wind, darkness, the sun.* You may wish to think of your own examples, or customize the list for different senses. Some of the examples may fit into more than one category.
5. After determining which sense the experience belongs in, draw a picture of the experience (you or a child may do this) in the proper box(es) with a crayon.

Discuss the completed chart. Through what sense(s) are most things experienced?

				
Drawings	Of	Examples	Go	Here

**Wildlife Prairie State Park
Our Sense-sational World
Pre-trip Activity**

Touchy Feely Box

Words you can use

touch
hard
soft

And other descriptive
words

Things you will need

three matching sets of
various objects such as
nuts, feathers,
pinecones, sticks,
leavcs, shells, and rocks

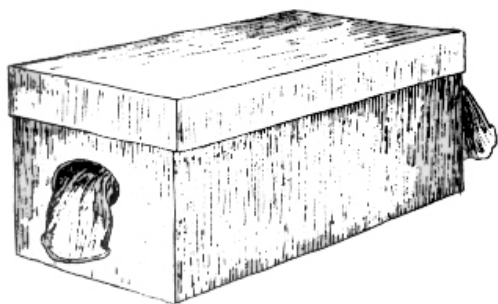
The mystery box as an activity is found in many science centers. This idea is just another twist to learning to identify things by touch. It goes one step further by adding a communication dimension to the find and feel “touchy-feely” box.

What to do

1. Build a touch box such as suggested here. (see illustration) The box should have two openings so that two children may work together. Attach old socks over the openings so hands can slip into the box and not be seen.
2. Place 2 sets of items in the box. Also place a set in sight of the two participants.
3. Have a child reach in and describe one of the objects in the box by touch. The child can look at the visible objects, using the sense of sight to help support his or her descriptions.
4. As one child describes the object, the other child is to find that the object in the box by using the sense of touch. Both of them pull out their shapes. Do they match? How are they similar or different? Look at any incorrect shapes, review the characteristics described, and put them back. Try again.
5. The fun of this touch game is obvious. Hands touching and sharing secret secrets shapes are wonderful. The verbal exchange can serve to teach descriptive attributes and touch words with instant reviews by the teacher and a self correcting mode built into the game.

Want to do more?

Choose more touch words: hard-soft, warm-cold, smooth-rough. Make up many mystery boxes and have the children match boxes containing like objects. For young children, place an object on top of the box and have them reach inside to find the match.



Adapted with permission from Mudpies to Magnets, R. Williams, R. Rockwell, 1987 page 36, Gryphon House Inc. Box 207, Beltsville, MD 20704

**Wildlife Prairie State Park
Our Sense-sational World
Pre-trip Activity**

Words you can use

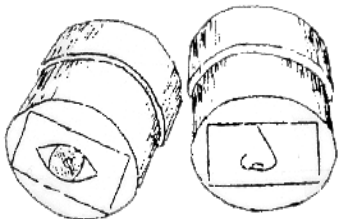
taste
touch
smell
feel
listen
hear
senses
names of body parts
match
different
same
pair
belong
alike

Things you will need

film canisters or
darkened bottles

objects to place in the
containers – 3
containers make a set –
2 that match and 1 that
doesn't.

Examples of sets are:
2 marbles and 1 rock
(sight), 2 containers
almost filled with salt
and quarter full of
sugar (taste), 2 small
circles of sandpaper
and a penny (touch), 2
cloves and 1 cinnamon
stick (smell).



Shake, Shake, Shake

It's time for a new twist on the old shake and match game. This activity gets all the senses involved. It can begin as a simple "which one doesn't belong" game with the children matching by sound, taste, smell, or texture. As the children work with the materials and become more skillful, they can learn to play more complex games with the same materials. In the process they develop their sensory, discrimination and memory skills.

What to do

1. Place the sets of objects in canisters, leaving all containers accessible to the children. Getting the tops off to check the answers may be difficult for some.
2. Each container is labeled on the bottom by the sense (other than sound) which can be used to identify its contents. These labels can be taped or glued on the container (see illustration). This will serve as a self check
3. The children are to shake the containers and to determine by sound which two match or which one doesn't belong. Then they may open the containers and use their other senses to see if they are right. Less experienced children will need to begin with sets of three containers. More may be added as their skills improve.

Want to do more?

Take off the labels and have the children determine the sense used. Have the children make up new sets. Remove a sense, e. g. Can you tell sugar from salt without taste?

Wildlife Prairie State Park
Our Sense-sational World
Post-trip Activity
Also Meets Math Goal # 6

What's the Color of the Day?

Words you can use

match
compare
how many
color names
graph

Things you will need

small swatches of
material in various
colors or paint chips
from the paint store

easel-sized paper
markers or crayons

assorted colored
construction paper
cut into 1 inch
squares

glue or paste

The world is a mass of colors which make it a bright, beautiful, and exciting place. *What's The Color of the Day?* focuses on color concepts through the scientific process of matching and graphing. It's simple to do with the help of colored paper squares or beads that can be turned into a graph even by non-counters.

What to do

1. On Monday pass out swatches of material that are of one color, Tuesday might be yellow, Wednesday might be green, etc.
2. Ask the children to find in the room as many matches to the color as possible. Findings are recorded by the teacher and a graph is made of all the things that match the color of the day. For example, on blue day a 1 inch blue square of construction paper would be handed out for each blue item found. The graph is formed by drawing a baseline on a large piece of paper. Below the line, write the color word in that color. Paste the 1 inch color squares above the line to form the first column of a bar graph. Choose a color each day for several days to complete the graph.
3. At the end of the week, compare the columns. Which color has the most squares? Are there any with none? Which was the easiest to find? With some children, you may want to count the squares and compare results that way. Think about what objects you found for each color. How many of them can you remember?

Want to do more?

Let the children predict the number of color swatches that they think they will find on a particular day. The same process can be used for matching shapes, textures, or anything else. Look for the same color inside, then outside. Is there a difference in the number you find?

**Wildlife Prairie State Park
Our Sense-sational World
On Site Activity**

Color Hike

- OBJECTIVE:** To increase awareness of the variety of coloration in nature.
- DESCRIPTION:** Students do an inventory of natural colors in the out-of-doors.
- MATERIALS:** Paper, pencil, paint samples
- PROCESS:**
- *Discuss color variations readily noticeable in the classroom.
 - *Name several variations of colors (red, crimson, scarlet).
 - *Have students list different colors on paper and divide into groups and go find examples in nature.
 - *Have students write down where they found the examples of different colors.
 - *Compile a master list of objects found on individual inventories.
- OPTIONS AND EXTENSIONS:** This project takes on an interesting twist when each group is given a single color. Students will be surprised at the wide variety of shades and tints of single colors. These colors may require more creative labeling.

Wildlife Prairie State Park
Our Sen-sational World
Post – trip Activity

Words you can use

Rough
Smooth
Collage
Hard
Soft
Texture
Slick
Bumpy
And any other
descriptive words

Things you will need

Leaves
Pinecones
Wood
Rocks
And other nature walk
treasures

A variety of materials of
different textures such as
cotton balls, plastic, sand,
and cloth

Adapted with permission
from - Mudpies to
Magnets, R. Williams, R.
Rockwell, E. Sherwood,
1987 page 43 , Gryphon
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Texture Collage: Take your fingers for a walk

Young children are constantly using their sense of touch. It is one of their tools for exploring and evaluating each new experience. Our texture finger walk helps children focus on the sense of touch and encourages the development of descriptive language as they talk about their “journey.” Tactile discrimination improves as children learn to “walk down the road” in search of a particular texture. Their fingers will never feel the same again.

What to do

1. The adult should collect the items for texture collage.
2. On a piece of tag board, or heavy cardboard, draw a path and a series of garden areas.
3. On the path area spread a thin area of glue and sprinkle sand on the glue. You have made a rough road.
4. Now fill in each garden area by gluing a group of identical objects on the board. As you add the objects to the collage, discuss the texture of each. A forest of pine cones or a bed of cotton have definite textures and will be remembered as smooth or rough, but they may have other attributes. Discuss the possibilities.
5. Complete your texture collage and allow it to dry. The collage will be a series of texture gardens connected by the rough road.
6. The teacher asks one child to walk down the road with his or her fingers, eyes open. Discuss the rough road, the smooth stones, the hard, smooth mirror lake, etc. as the child “walks” through the collage.
7. Have another child walk down the rough road to the soft cotton patch and describe it, or have the child tell about another garden spot on the collage.
8. Finally, blindfold a child and let him or her follow the path through the texture collage. Talk about what is felt along the way. Encourage creative use of the language by asking the children to describe what their fingers are feeling. With some children you may want to introduce additional descriptive words.
9. Place the collage in the science center for free play.

**Wildlife Prairie Park
Our Sense-sational World
Post-Trip Activity**

Sense Game

Words you can use:

Body part names related
to senses
touch/feel
sight/see
hear
taste
smell
match
move
roll
shake

Things you will need:

2 cubes of cardboard
(30x30 cm –see
illustration)
pictures of body parts
related to senses.

An important part of getting ready for academics is good sense awareness. Children need frequent practice moving all parts of their bodies in different ways. They also need to be able to identify their senses by name. Much of this comes naturally through play and other activities. Still, it doesn't hurt to reinforce these experiences to be sure that children have the knowledge and skills they need. The sense game does this in a way that's fun!

What to do

1. Glue a picture of a part of the body related to a sense on each side of the cube (directions for cube on next page): eyes, ears, nose, tongue, hands, (for the sixth side of the cube draw a picture of the body).
2. Roll the cube and name the body part that lands up.
3. Name the sense used by that part.
4. Have the children move that body part
5. Have the next child roll the cube and repeat the steps.

Cube Template for the Sense Game

