

TRAILSIDE LESSON PLAN

COURSE/PROGRAM TITLE: **Wildlife Explorations**

DATE: **2019** TIME: **45 min** SESSION NUMBER: **1 of 1**

AGE/GRADE: **No specific age** ENROLLMENT: 12

INSTRUCTOR(S): **Karina Moy/ Joe Filo**

PROGRAM PURPOSE: This is an **adaptive interpretation program** that introduces students with a range of cognitive and/or physical abilities to the wildlife of the Watchung Reservation with access to the **Trailside Sensory Trail**.

SESSION CONCEPT(S):

- All animals (that includes us, people too!) have four basic needs for survival: **food, water, shelter, and space**.
- Different animals have different lifestyles (**diurnal/nocturnal, predator/prey, warm-blooded/cold-blooded**).
- Even if we don't directly observe them, we know animals are in the area because they leave **signs** (tracks, feathers, fur, bones, food remains, shelters).
- Our senses can help us **identify animals** (animal sounds, scents, looking for signs, etc.).
- Wildlife play important roles in our living world, so sometimes it's nice to leave **gifts for wildlife** (bird/butterfly houses, birdfeeders, solitary bee home, etc.)

SESSION OUTLINE (ACTIVITIES AND CONTENT, ATTACH ANY HANDOUTS):

CHOOSE PROPS TO SET UP ALONG THE TRAIL BEFORE GROUP ARRIVES:

ALL SEASON PROPS

- Stamp tracks in track bed [**tracks/signs of animals/sense of sight**]
- Stage mammal pelt behind shrub/obstacle so that tail is visible [**predators**]
- Scatter bones, antlers, turtle shell, snake shed, and feathers on the ground along the trail [**signs of animals/sense of touch**]
- Place a brightly colored bird on a branch [**bird songs/sense of hearing/signs of animals**]
- Spray stinky deer spray in one area to mimic skunk/fox spray [**sense of smell/signs of animals**]

WARM SEASON ONLY PROPS

- Attach camouflaged insect to tree [**camouflage**]
- Lay turtle or snake toy on a log [**basking/cold-blooded**]
- Arrange butterfly lifestyle models on milkweed or other plant [**metamorphosis**]

Introduce self and Trailside NSC, Watchung Reservation (this special park/ reservation is a place that is reserved or saved just for nature; plants and animals). Please come back again and visit us, the museum and trails are free and open just about every day.

Today we are going to have fun learning about the animals or wildlife that call the Watchung Reservation their home.

We are now going on a walk/hike.

Go over applicable trail rules:

- No running, stay on trail, do not touch or pick things
- Tuck SOCKS into pants
- Show/explain poison ivy – “Leaves of three, leave them be. Hairy vine, no friend of mine. Berries white, take flight.”
- Be very quiet = you see more animals
- Watch your step (tree roots, rocks...don't trip)
- Please stay behind the naturalist at all times

START HIKE AT: Sensory Trail Entrance Circle, Gazebo, or either Outdoor Classroom

SUGGESTED HIKING STOPS (starting from Sensory Trailhead):

1. **Kiosk (Choose 1-2 of the following to play for group during the appropriate season):**
Animals make many different sounds. This is to communicate anything from “Hey there’s food over here!” to “Predator approaching!”
 - **Insect calls** (Spring/Summer)
 - **Why do birds sing?** (All seasons)
 - **Woodpeckers drumming** (All seasons)
2. **Sign: Poison Ivy** – Discuss how to recognize poison ivy. “Leaves of three, let them be. Hairy vine, no friend of mine. Berries white, take flight.”
3. **Sign: Box Turtle** – Discuss some of the unique adaptations of turtles. Turtles are reptiles. All reptiles have a strong, protective shell. Box turtles can hide their entire body within their shell and close it up like a box. Reptiles are cold-blooded. Has anyone ever seen a turtle sleeping on a log or a rock on a warm, sunny day? That is so the turtle can warm up its body enough to move around to do things like look for food. During colder months we don't see reptiles because they are hibernating.
 - **Prop: Turtle basking** – Does anyone see a turtle around here basking? *Have group look around for turtle prop*
4. **Prop: Bug camouflaged** – Sometime people want to disguise themselves so they can hide really well. This is called camouflage. Many animals are very good at camouflaging. Some animals camouflage to give them an advantage when hunting for food, while other animals become better at hiding from predators because they blend in with their surroundings. Can anyone see a bug camouflaged on a tree?
5. **Sign: Chipmunk** – Chipmunks are a smaller relative to the squirrel, which probably many of you have seen around your neighborhoods. Chipmunks like to live in forests, because they need to dig large boroughs under the ground. They live with their families, just like people, and they have multiple rooms in their boroughs, including a place to store all their food. Chipmunks love to eat nuts, and because they can't carry the nuts in their hands while they are gathering food, they store them in their cheeks! Who can puff out their cheeks like a chipmunk?

OUTDOOR CLASSROOM (15 min) – Set up 1-2 bins full of mock minibeasts. Bring around to each student and have them find and hold one minibeast. Discuss topic of minibeasts. For details about specific invertebrates see [Minibeasts lesson plan](#)

6. **Sign/Prop: Animal Tracks** – Stop at the animal tracks sand pit. Discuss how animals leave footprints behind when they have been walking somewhere, just like people. We call them “tracks” instead of footprints. Let’s see if we can figure out what types of animals have visited here. What directions do you think each animal was going?
7. **Prop: Brightly colored bird** – There are so many kinds of birds in the world! Some are bigger than us, and some are smaller than a chipmunk. All birds have wings, but not all birds fly. Many birds feather colors change depending on the season. When birds are looking for a mate to lay eggs with, they will create beautiful displays to get the attention of another bird. For instance, some birds do a crazy dance, some birds sing a song, some birds bring gifts of food, and some birds show off their beautiful and bright feathers. Has anyone spotted a beautiful, brightly colored bird?
8. **Sign: Nuthatch** – The White Breasted Nuthatch is one of our forest’s interesting bird species. They hunt for insects on tree bark by moving head-down the trunk of a tree. They like to nest in small holes in trees. When they can’t find insects, they often visit birdfeeders to munch on seeds and nuts.
9. **Prop: Mammal tail peeking out from behind obstacle** – Has anyone ever heard the phrase “predator versus prey”? Those words are used to describe two different types of animal lifestyles. Animals known as predators are the hunters. Can anyone name an animal that eats other animals? Prey are the animals that are hunted. They are usually smaller and don’t have sharp teeth or claws. Does anyone see a predator hunting nearby?
10. **Sign: Tiger Swallowtail** – The Tiger Swallowtail is one of New Jersey’s more common large butterflies. Many people think all butterflies are pretty colors and moths are ugly, but that’s not actually true! Another common butterfly in New Jersey is called a Cabbage White butterfly and it is very small and completely white. Butterflies have a long tongue to drink nectar called a proboscis, but moths have small mouths. Moths usually come out at night, while butterflies are seen during the day. Animals that come out at night are called “nocturnal”, while animals that come out during the day are called “diurnal”.
11. **Prop: Butterfly Metamorphosis** – Stop at the milkweed by the gazebo. Explain metamorphosis using the butterfly replicas. I’m going to tell you the story of the very hungry caterpillar. *Show egg replica* A caterpillar hatched out of one of these tiny little eggs. The caterpillar was very small, and very hungry. So the caterpillar began eating. As it ate it grew and grew. *Show large caterpillar* It grew so large that it became tired of eating and moving. So, it attached itself to the bottom of a leaf to rest. Eventually it created a protective shell and became a chrysalis.*Show chrysalis*. While it was in there the caterpillar did not have to worry about eating. After a long time, the chrysalis became clear and there was no longer a caterpillar inside. While inside the chrysalis the caterpillar’s whole body actually had become a butterfly! *Show butterfly* When it was ready, the butterfly emerged from the chrysalis. Once its wings were dry it flew away.
12. **Sign: Red-Tailed Hawk** – Hawks are known as birds of prey, or raptors. Remember that prey are the animals that get eaten. Despite the confusing name, birds of prey are predatory birds. They eat small mammals like mice and smaller birds. Some birds of prey, like vultures also eat dead animals. Around here we see a lot of turkey vultures; they are the ones that glide around in circles. The most common hawk around here is the red-tailed hawk.
13. **Prop: Bones/Antler/shell/feathers left behind** -- **Stop along the trail wherever you placed

these items and discuss (what is it, who left it, and if is that animal still alive)

14. **Good places to chow down** – Look for berries growing, discarded nut shells, fungi, etc. along the trail and discuss how the forest provides many sources of food. What kind of animal might eat this food source?

At the end of the hike, gather children together. Do a TICK CHECK.

*** If time permits

Raised/ Prepared bins of minibeasts
Create gifts for wildlife to take home

Check for Understanding:

*** Ask teacher to please fill out an evaluation form.

BEHAVIORAL OBJECTIVES: (How do you measure what they have learned?)

- What four things do animals need for survival?
- What are some examples of different animal lifestyles?
- Can you name some signs of animals we saw today?
- What senses did we use to discover animal signs?
- What is one nice thing we did for the wildlife?

RESOURCES USED [Materials, Books, Computer Files]:

Toys: Turtle/snake, insects, brightly colored bird, fox/raccoon tail, butterfly metamorphosis
Antler, bone, turtle shell, feathers
Track stamps
Bird whistle
Turkey Call
SkunkShot to represent skunk or fox spray
Minibeasts: plastic invertebrates, woodchips, 2 bins
Gifts for wildlife: butterfly house kits, bird houses, mason bee houses

MUSKRAT

Common Muskrat



WEASEL

Least Weasel



TURKEY

Turkey



FOX

Red Fox



MINK

Mink



DOG

Canine



BEAVER

American Beaver



BOBCAT

Bobcat



CROW

Carrion Crow





RABBIT

Cotton-Tail Rabbit



SQUIRREL

Red Fox Squirrel



OPOSSUM

Possum



SKUNK

Striped Skunk



DEER MOUSE

Deer Mouse



RACCOON

Raccoon



WOODCHUCK

Ground Hog



COYOTE

Coyote



DEER

White-Tailed

