

**GRADE ONE FALL NATURE WALK**  
**Animals and What They Need to Survive**

**OBJECTIVES:**

- Learn what animals need to live.
- Explore how different habitats meet these needs.
- Compare fall resources with summer food sources and shelter.
- Observe birds and other common animals.
- Optional: ID some common birds.



**PREPARATION:**

Before going out the *grade coordinator* or *class rep* should

- Fill out and give teachers Upcoming Walk Announcement flyer (available at <http://harrington.lexingtonma.org/BigBackYardWebsite>) as well as copies of sections on pre and post walk talks from this walk guide
- Schedule walk for early to mid October.
- Walk should last about 45 – 60 minutes.
- Schedule first thing in the morning before other classes come out for recess.
- Notify the school nurse of the scheduled walks.

**MATERIALS:**

- Bug box (one per group).
- Hand lenses (one per child).
- Tongue depressors labeled: *food, water, warmth, air, shelter, protection*
- Clipboard, pencil.
- Observation Worksheet.

**ACTIVITIES:**

- Observe and listen for animals.
- Discuss what animals need to live and grow.
- Explore different habitats.
- Record all food sources, shelter, and all animals and animal signs in each habitat. Big Backyard walk leader fills out Observation Worksheet during walk.
- Compare food and shelter in summer to those of fall.
- Optional: ID common birds.

*Remember, the children are still learning how to behave on a Nature Walk--how to focus, observe, wonder, and thereby enjoy exploring, discovering, learning, and sharing.*

**PRE-WALK ACTIVITIES: TO BE LED BY THE TEACHER**

1. Have children list all the animals they can think of that might live near the school. Children often think only of mammals when the word “animal” is used. But scientists mean **all** animals -- spiders and hawks, bees and, turtles, as well as dogs and squirrels. Encourage children to draw on their own knowledge to make a long list. Accept any reasonable guess, i.e. tigers and crocodiles are out, but coyotes and deer are possible. And don't forget people! It's fun to think of all the animals that might share the schoolyard.

Look at the list they have made. Have children help you to check animals they have actually seen near the school. (Birds, insects and spiders, squirrels, perhaps a rabbit.) **Ask:** *Why don't we see all the animals on the list? When are big animals like deer, foxes and skunks likely to be out looking for food?* (At dusk, night, or early in the morning.)

2. **Ask:** *Why do you think birds and other animals would choose to live in the school's Big Backyard? What do animals find here that makes them want to stay? What do all animals (birds, people, butterflies, rabbits, dogs, caterpillars) need to live and grow?* Have children in small groups brainstorm for a few minutes and write down their ideas. Then make a class list including:

|              |                   |
|--------------|-------------------|
| <b>Food</b>  | <b>Warmth</b>     |
| <b>Water</b> | <b>Shelter</b>    |
| <b>Air</b>   | <b>Protection</b> |

(Sometimes children add sleep, a means of protection, or other needs, and this is fine, but the six listed above are the critical ones.)

Scientists use the word **habitat** to describe the *place* where plants and animals live. A habitat provides everything an animal or a plant needs to live and grow. **Ask:** *What habitats are there near the school?* (The woods, grassy fields, edge areas.) This year first graders are going to be scientists studying the birds and other animals that live near the school. **Ask:** *What are the best places to look for wildlife in the school's Big Backyard? Why?*

Sometimes animals are not seen in their habitats because they are resting or hiding. Then we can look for signs or evidence of animals, food sources, and places to shelter. Scientist usually record what they discover, so they write down not only the names of any animals they see, but all the food sources, shelters, and signs of animal activity in each of the habitats. On the walk, the children will report what they discover to the Big Backyard leader who will write it down.

3. How should children behave when they are on a Nature Walk? Suggest making a class list of appropriate behaviors and post these. For example: Stay together as a group; Move slowly so we don't scare animals; Talk quietly; Share your discoveries with others; Listen to nature and to each other; Cooperate with walk leaders.

## NATURE WALK: TO BE LED BY BIG BACKYARD VOLUNTEER

### 1. Observing and listening.

- While walking across the schoolyard, **\*ask the students:**
  - ~ *What animals do you think you will find living near the school?*
  - ~ *How should you behave if you want to see some animals? Walk slowly and quietly.*
  - ~ *Are the schoolyard and woods our homes or the animals' homes?*
  - ~ *How many different bird and animal sounds can you hear?*

Remind the children that we are really just visiting, and we need to be careful not to harm any animals' homes that we find.

- We are all scientists! Scientists look for clues or evidence in order to find information. **\*Ask the students:**
  - ~ *When are larger animals (deer, fox, rabbits, coyotes, skunks, opossums) active? Early in the morning and in the evening.*
  - ~ *Do you think you will see any big animals during the middle of the day? Probably not.*
  - ~ *What animals are active during the day? Birds, squirrels, mice, insects, spiders.*
  - ~ *Using your 4 BBY senses, do you think that we will find any evidence of animals, without finding the animal itself?*



### 2. Basic Elements Required for Life

- **\*Ask the students:**
  - ~ *Is everyone breathing?*
  - ~ *Are you wearing a sweatshirt or a bathing suit? Sneakers or flip-flops?*
  - ~ *Who had breakfast?*
  - ~ *Who woke –up this morning in a house or apartment?*
- All living organisms need these 6 basic elements in order to survive:
  1. Air (have the students breathe in and out deeply)
  2. Warmth (who is wearing a sweatshirt or jacket?)
  3. Water (from clouds, rain, puddles, dew – whose shoes are wet?)
  4. Food
  5. Shelter
  6. Protection (SAFE place to build one's shelter)
- **\*Ask the students:**
  - ~ *Where would be a good place to look for birds or other animals? Why?*

~ *What do animals need to find in their habitat?* Use tongue depressors to help children list what birds and other animals need to live and grow:

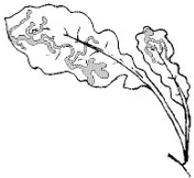
**Food, water, shelter, protection, air, warmth.**

### 3. Looking for and recording animals, food sources and shelter.

- Bring out the clipboard and begin to record all children's discoveries. Talk about the importance of walking slowly and exploring as a group so they can share and you can write down their discoveries. Ask children to note what the animals are doing. Help children to realize that birds and most animals may be frightened of them and remain hidden. (Means of protection). It's OK if they don't see many birds or other animals. Scientists learn a lot by exploring habitats and looking for food, shelter, and signs of animal activity. Show the children the tongue depressors labeled: *food, water, warmth, air, shelter, protection*. Use them to remind the children that they are looking for these things.

- Fall food sources and signs of animals include such things as:

- Seeds.
- Chewed leaves.
- Berries, rose hips, and nuts.
- Galls, cocoons and insect egg cases.
- Woodpecker holes.
- Bark beetle tunnels; leaf miner trails.
- Rabbit, skunk, fox and other scat.
- Meadow mouse tunnels in the tall grass.
- Stems and small branches bitten off by rabbits and deer.
- Nests (birds and squirrels).
- Holes in the ground (chipmunk, rabbit, woodchuck, fox).
- Holes in trees (raccoons, chickadees, woodpeckers).



Leaf miner trail



Oak gall



Rose hip



Bark  
beetle  
marking

- Explore each habitat in turn. Don't forget to keep looking up at the sky. Encourage children to think about how each habitat provides what the animals living there need to survive. Meadow mice don't live in the woods and woodpeckers don't live in the meadow.



Centipede



MILLIPEDE

### Area #1: In Front of the Administration Building

- Standing near the Red Cedar tree to the left of the front door,  
\*Ask: *Being quiet and standing still, what do you hear? Feel (sun on hair, wind on cheeks)? Smell? See?*
- \*Ask: *How many animals home can we find in this small area? Look high and low!* Facing the building with the tree to your left, observe:
  - ~ Bird's nest in the red bell box
  - ~ On the window next to it, a ring left from a past paper wasp nest
  - ~ Notice the holes on the underside of the gutter (birds)
  - ~ There are two birds nest in the Red cedar tree.
  - ~ Looking at the tree facing the building, there is a chipmuck hole a few paces away at 10 o'clock.
- \*Ask: *What are some examples of the 6 things needed to live and grow in this habitat?* There are multiple examples of nests (birds and bees) and other shelters. This habitat has water (in the gutters), food (yew and juniper berries, grasses), shelter (high nests - some protected in the building eaves and bell box), air, and warmth (located in the sun).



### Area #2: Open Grassy Spaces

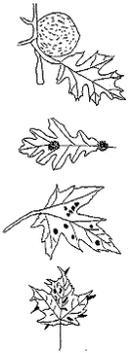
- Standing in the grassy open space near the side or front of the building,  
\*Ask: *What do you hear? Feel? Smell? See?*
- \*Ask: *What animals make a shelter in the grass?* Look for worm castings, ant hills, grasshoppers, dragonflies, spiders and webs, birds overhead, feathers, hopping and flying insects.
- What are these tiny animals eating? Leaves are food for rabbits, mice, caterpillars, crickets, grasshoppers. Wildflowers and seeds are food for mice, squirrels, and birds.

Is a caterpillar seen as an animal looking for lunch or as somebody else's lunch? Are these smaller animals in turn food for larger animals? Do you ever see the hawk circling overhead? What do you think the hawk is looking for? Each animal is both looking for food and trying to avoid being food for another animal.

- \*Ask: *What are some examples of the 6 things needed to live and grow in this habitat?* Don't forget the dew on your shoes as a source of water!
- If a child could hop as far for their size as a grasshopper, then the child would be able to jump the length of a football field.

### Area #3: Edge Areas

- Edge areas are a rich source of both shelter and food for many animals.  
\*Ask: While squatting down in front of the edge area, what do you hear? Feel? Smell? See? How big must an animal be in order to fit under the shrubbery? To fit thru the branches of the rose hip bush?
- Notice woody stems nibbled by rabbits, leaves eaten by insects, scat, mouse tunnel. Watch out for the bees near the flowering plants! The beetles are especially colorful near the goldenrod.
- Show children an **aspen stem gall** or a **sumac gall** with the larva sheltering inside. (A gall is produced when an insect lays an egg plus an irritating chemical on a plant. The plant grows extra plant cells around the egg to protect itself. When the egg hatches, the larva is in a nice cozy waterproof house surrounded by its dinner. It stays there until it is ready to emerge as an adult.) Galls are food for chickadees and woodpeckers. Respectfully place the opened gall on the ground for birds to feed on.



### Area #4: The Woods

- Walk into the woods and stop about 5 paces before the footbridge. \*Ask: Using your senses what do you notice about the area you are in now? It is noticeably darker and mustier and perhaps cooler.
- Move slowly along the path looking for animal shelters as well as food sources. Encourage children to stop and listen in the woods. Groups usually stop at the footbridge.
- To the right of the footbridge on the woodland path, notice the woodpecker townhouse on the large, dead tree. What a smart bird! They have water (from the brook), food (notice the woodpecker holes made from searching for bark beetles), shelter, and protection (the fox can not climb trees). All of these things are found in this small area.
- Look for chipmunk holes in the dirt or near tree roots and for partly eaten acorns and other nuts. Look for woodpecker holes and evidence of bark beetle activity (on the fallen log to the left of the footbridge) as well as galls sheltering insect larva and leaves chewed by hungry insects.
- Children may discover scat from deer, rabbit, fox, or other animals.
- Carefully turn over a rotting log to discover the animals sheltering there. The rotting log is a habitat for the animals living there. Centipedes, millipedes, sow bugs, ants, spiders, and beetles are commonly found. If luck is with you, children may find a slug, salamander, or a hibernating bee or wasp. Needless to say, do not disturb the bee or wasp; cool fall air will keep them inactive if not disturbed. But do pick up the slug and



Woodpecker  
hole



Sow bug



place it on your hand to warm up. Soon its antennae will emerge from its head as if by magic. Antennae are the “eyes and nose” of a slug. If lightly touched, the antennae will disappear back into the head, only to emerge again. Watching a slug perform will keep even the most active children entranced. These tiny animals cannot stand handling by a number of excited small hands. Putting one in a bug box gives children the opportunity for close observation without harming the animal.

- Look for leaf miner trails made by a tiny larva that lives between the top and bottom layers of the leaf, eating the green part and crawling into the tunnel it creates.

## 7. Compare food and shelter available in summer to what is available now then Wrap up.

- **\*Ask the students:**
  - ~ *Were there food and shelter available in the summer that aren't available now? What about flying and hopping insects? Or flowers rich with nectar? Or worms in the earth or caterpillars munching leaves?*
  - ~ *Why aren't these animals and flowers around now? It is starting to become too cold. Winter will be coming. Flying insects as well as worms and caterpillars are food for tree swallows, robins, spiders, woodpeckers, skunks, and other animals. Hummingbirds, honey bees, and butterflies feed on nectar from flowers.*
  - ~ *What do you think these animals do when their food sources are no longer around?*
- After exploring the last habitat, walk back to school. **\*Ask:**
  - ~ *Is your schoolyard a good habitat for birds and other animals? Why do you think so?*
  - ~ *What parts of the schoolyard are the best habitat for wildlife?*
  - ~ *Are these the same habitats that are the best for children to live? Why?*
  - ~ *Can children and wildlife share this habitat?*
  - ~ *Do you think birds and other animals feel safe here? Why?*
- **\*Ask:** *Did you find what you expected to find on your Big Backyard walk? Did you find anything that surprised you?*
- Big Backyard volunteer gives Observation Report to teacher, returns materials to Big Backyard room, and fills out Walk Evaluation and leaves it in the Big Backyard room.

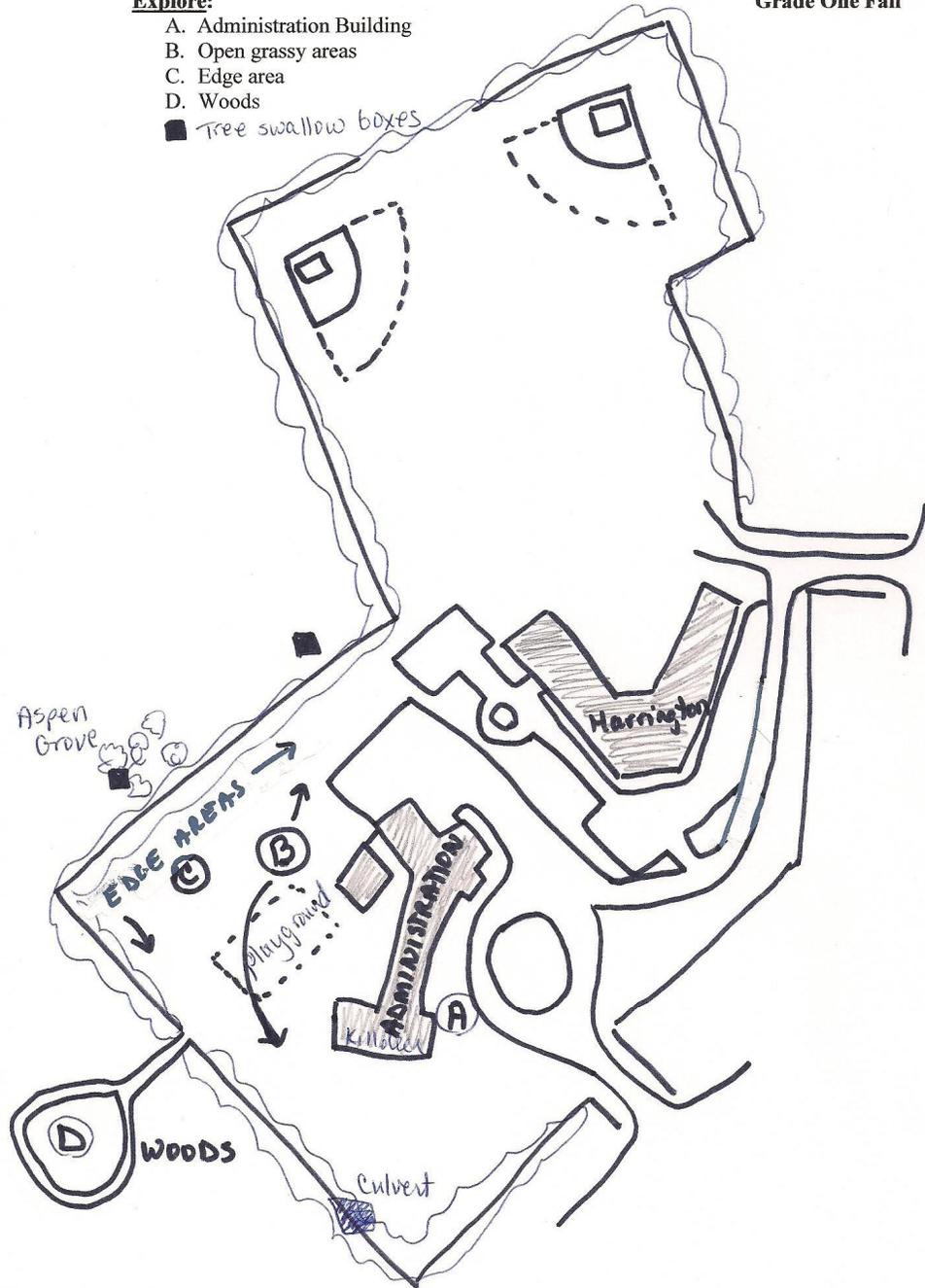


**Explore:**

- A. Administration Building
- B. Open grassy areas
- C. Edge area
- D. Woods

■ Tree swallow boxes

**Grade One Fall**



**POST-WALK CURRICULUM INTEGRATION OPPORTUNITIES: TO BE  
CHOSEN AND LED BY THE TEACHER**

1. Ask groups to share their animal discoveries, especially any birds seen. Add to the class list. Ask: *How can you tell birds apart?* Talk about descriptions of birds they saw, and differences in how birds look or sound. What were the birds doing?
2. Make a class chart of all the food sources they found as well as shelter available in late fall. Make another chart of food and shelter that was available in summer. Keep the charts to compare with discoveries from later Big Backyard walks.
3. Make a class mural to show one or more of the habitats they explored. The mural should show food sources (they might use real seeds or berries) and shelter. Children can draw birds and other animals to paste on the mural. Think about what makes a good habitat. Is everything the birds need to live right in this habitat? Alternatively, have each child draw a picture of one of the habitats they explored.
4. Ask: *Which animals can live here in cold weather? Do you think the tree swallow that eats mosquitoes and other flying insects can find food here this winter? Why or why not? What about chickadees and sparrows that eat seeds? What happens to the animals that can't find food and shelter in winter?* (Record possibilities: move away (migrate), die, sleep (hibernate)—these will be discussed further during the winter walk).

**Observation Report for Walk Leaders–Animals/Birds in Fall**

**ANIMALS SEEN /ACTIVITIES OF ANIMALS:**

**SIGNS OF ANIMALS**

**HABITAT: FOOD SOURCES:**

**HABITAT: SHELTER:**

**Things that interested children and questions they asked:**

## NATURE WALK EVALUATION

**Walk Leader:** \_\_\_\_\_

**Grade and Teacher:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Children in Group:** \_\_\_\_\_

**1. What parts of the walk interested the children the most? (check all that apply)**

|                |                          |                |
|----------------|--------------------------|----------------|
| Animal tracks  | Galls                    | The woods      |
| Scat           | Holes in ground or trees | The wet meadow |
| Seeds and nuts | Seeing animals           | Edge area      |
| Bark beetles   | Identifying birds        | Nests          |

Other: \_\_\_\_\_

**2. What parts were not successful? (check all that apply)**

|                |                          |                |
|----------------|--------------------------|----------------|
| Animal tracks  | Galls                    | The woods      |
| Scat           | Holes in ground or trees | The wet meadow |
| Seeds and nuts | Seeing animals           | Edge area      |
| Bark beetles   | Identifying birds        | Nests          |

Other: \_\_\_\_\_

**3. This walk was: (circle one) TOO LONG JUST RIGHT TOO SHORT**

**4. The children seemed adequately prepared: (circle one) YES NO**

**5. This was a good working group: (circle one) YES NO**

**6. I felt adequately prepared to lead this walk: (circle one) YES NO**

**7. Other comments or suggestions:**