KINDERGARTEN SPRING NATURE WALK
Plants, Animals, and Seasonal Changes

OBJECTIVES:

- Using touch, smell, sight, and sound, observe, describe and compare seasonal changes in the weather and the schoolyard since winter.
- Observe changes in the marked tree buds.
- Discover how wildflowers and trees change in late spring.
- Discover the connection between flowers and seeds.
- Explore plant parts: roots, stems, leaves, flowers, seeds.
- Enjoy exploring and discovering.

PREPARATION:

- Schedule this last Nature Walk for late May or even early June.
- BBY coordinator will mark maple, spruce, white pine, weeping cherry, and oak with surveyor's tape.
- Schedule walk first thing in the morning before other classes come out for recess.
- Notify the school nurse of the scheduled walk.
- Make copies of walk guide for each BBY volunteer (double sided)
- Make copies of at-a-glance sheet for each BBY volunteer
- Walk should last about 45 minutes.

MATERIALS:

- Clipboard, Signs of Spring Walk Report, Nature Walk Evaluation, and pencil.
- Bug boxes and hand lenses.
- Trowel.

ACTIVITIES:

- Observe seasonal changes with eyes open and eyes shut.
- Look for tiny insects and other animals in the grass.
- Explore the plants in the grass. Dig up a weed and name the plant parts.
- Closely examine blooming dandelions.
- Observe the blooming daffodils planted in the fall.
- Explore marked trees for buds, seeds, and flowers.
- Walk leader fills out Signs of Spring Walk Report during walk.

AFTER THE WALK:

- Leave Signs of Spring Walk Report with the teacher.
- Fill out Nature Walk Evaluation and leave in BBY mailbox (optional)
- Return all materials to school lobby.

PRE-WALK ACTIVITIES: TO BE LED BY THE TEACHER

1. Review drawings, charts, or seasonal murals from earlier Big Backyard expeditions with children. Ask the class: *What do you think you will find outdoors this time? How has the weather changed? What clothing will you need to wear compared with other trips? Why? What colors and sounds and smells do you think you will find in May in the schoolyard? What will the weather be like?* Remind children that scientists always have a reason when they make a prediction. For example, they might say the snow would be all gone; why do they think so? (There are more hours of sunlight and the air is warmer; snow melts to water when it is warm.) What other predictions might they make?

2. What about plants and animals? Ask them to think of the plant parts they explored in the fall and what they observed about plants in winter. Ask: *What changes in plants do you expect to see now? Why? How do you think the changes in weather will affect plants?* Have children make predictions about changes in trees and plants in late spring as summer approaches. Be sure they give reasons.

3. Observe and measure the growth of the fall planted daffodil bulbs.

Spring Walk: To Be Led By Big Backyard Volunteer

(45 minutes)

Divide the students up into groups, one per walk leader. Assign each leader a different site to begin walk.

1. Observe changes since winter and compare spring to other seasons.

- Walk outside and find a grassy area. Sit on the grass or stand if it is wet. *Ask: *What signs of spring do you see? Have all the trees turned green? What does the sky look like? What animal clues can you find? Are there worm castings and anthills in the grass? Is it almost summer?* (signs of summer include warmer temperatures, more hours of sunlight, water instead of ice or snow)

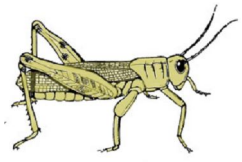
- Have the children close their eyes for 20-30 seconds. While their eyes are closed, *Ask:
  - *What do you hear? Are birds singing? Any insect sounds? Does the schoolyard sound like winter?*
  - *What do you feel? Is the sun and air warm? Do you need a warm jacket and a hat? How do plants feel when you touch them?*
  - *What do you smell? Soil? Flowers? Freshly mowed grass?*

2. Explore the grass for insects and spiders, and signs of insects and spiders.

- Have the children open their eyes and look for creatures in the grass. Use the bug boxes and hand lenses for closer observation. Take time to watch and enjoy. Items observed may include:
  ~ ants and ant hills
  ~ grasshoppers and crickets
  ~ spiders and spider webs
  ~ beetles and ladybugs
  ~ bees, butterflies, and dragonflies

Ladybug

- Look for worm castings (worm poop), which are little piles of dirt in the grass. Unlike chipmunks who also live in the ground, worms have no arms to dig with. Instead, they eat the soil in order to burrow a hole. They then poop out the soil in a little pile called a worm casting.
  *Ask: *Where were the worms all winter?* Look for robins enjoying a tasty earthworm lunch.



Grasshopper

- Interesting facts can help focus children:
  - If a child could hop as far as a grasshopper can, the child could hop the length of a football field in one jump! Observe the size of the hind legs as compared to the front.
  - An ant can carry 50 times its own weight! *Ask the children: W*hat do you weigh? How much could you carry if you were an ant?*

3. Explore the grass for wildflowers.

- Have the children look for wildflowers in the grass and edge areas. *Ask: *Why are flowers growing now when they didn't in winter? What has changed?* Warmer weather, more sunlight, water is no longer frozen
    - Wildflowers may include dandelions, yellow hawkweed, yellow cinquefoil, and clover in bloom.

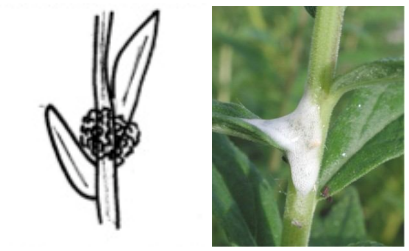
Yellow Hawkweed Yellow Cinquefoil White Clover

- Use a trowel to dig up a weed and name the plant parts (roots, stem, leaves, flowers, seeds). Be sure to replace the clump when you are through.

- *Ask the students:
  ~*Which plant parts have changed the most?* Green leaves, long stems, flowers, seeds, and smells.
  ~*What plant parts do you see that you didn't see in the grassy schoolyard in winter?* Some wildflowers will grow from roots that wintered under the snow, and some will be brand new plants from seeds.

- Children may find some white bubbles on the stem of a wildflower. This is the home of the "spittle bug," the larva of an insect called a froghopper because if its bulgy eyes. The larva sucks sap from the stem of the wildflower for its food. It also blows sap from an opening near its tail to make bubbles and protect itself from the hot sun and predators.

With your finger, gently part the bubbles and move the larva onto your hand so children can see it, then carefully return it to its crystal palace. *Ask: *What do you think it would be like to live in a house made of bubbles?*



4. Explore a dandelion.

- Find dandelions with open yellow flowers, wilted closed-up vertical flower heads, and puffy seed heads.

- *Ask: *Can you see a lot of dandelion flowers? Let's pick one to learn from.* Pick an open yellow blossom.

    - *Ask: *How many flowers am I holding?* They will quickly say one. But you are holding fifty or more, as every dandelion petal is a complete flower!

    - Pull off separate petals and let children look at the flower parts with and without a hand lens. Explain that each petal is a flower. (The curly yellow pistil and stamen are clearly visible, along with the white fuzzy filaments at the base of each petal.)

- Pick and open an elongated closed flower head and observe the seeds forming. (Dandelion buds that have not yet flowered are rounder.) The yellow petals will have wilted and the seeds are clearly visible at the base of the long white filaments. The seeds are green at first but then turn dark brown.

- Find and examine the fuzzy seed head children so love to blow. Find the seed at the base of each white filament. Each petal flower has become a seed. Let children scatter the seeds so new dandelions will grow. The wind helps some plants to spread its seeds.

- Look at the dandelion leaves. The word dandelion is French for lion's tooth, named after the leaf's resemblance.

5. Investigate trees.

- Examine the trees for **leaves**, **flowers**, and **seeds.** All deciduous trees and shrubs have flowers. Many students do not realize that trees have flowers!
- *Ask the students:
    ~ *Have all the trees leafed out?*
    ~ *Do some trees have baby leaves and some full size leaves?*
    ~ *What do baby leaves look and feel like?*

    - Maple Tree:
        - By mid-April, maple trees have flowers. The flowers drop to the ground and are followed by the seeds (often called maple keys). By May or June you will only see seeds.

    - Spruce:
        - This very large and fast-growing tree blooms in June. It grows whorled branches like the white pine. The tall spruce in front of central office was planted around 1980 in honor of a retiring teacher.

- White Pine:
  - Look at the pine tree buds. In June, the white pines bloom. Conifers do not have flowers, but do have seeds hidden inside their cones. The buds do grow and produce pollen, and seed-bearing cones are developed, but technically do not have flowers.
  - Have the students stand back and not down wind. Move a branch and watch the yellow pollen fly.

- Weeping Cherry:
  - In June, notice the beautiful pink blossoms.

- Oaks:
  - By mid-May, the oaks are beginning to flower. The tiny, perfectly shaped oak leaves appear while the flowers are still on the tree.
  - Look for any acorns from last fall that may have begun to sprout. Ask: *Is this a seed? Will it grow? What will it grow into?*
- How many students does it take to give an oak tree a hug? What a large trunk (actually a stem)!

Compare trees with wildflowers. *Ask: *Do trees and wildflowers have the same plant parts?* (Roots, stems, leaves, flowers, and seeds.)

6. Wrap-up.

- Walk back to the classroom. This is the students' last Nature Walk for this year. Encourage the children to continue learning about nature by exploring their yards at home. Remind them that they can return to the school grounds during the summer and look for changes. Exploring outdoors is a good way to learn and have fun at the same time!


Harrington School
Big Backyard
white pine
spruce
dandelion
plantain
tansey
red maple
sumac
American elm
crab apple
cherry
Harrington School
black locust
crab apple
norway maple
grasses
sumac
grape vine
sugar maples
hemlock
yew
crab apple
cedar
Central Office
dead tree
blackberry
rosehip
bridge
salamanders
poison ivy
spruce
telephone
pole
red oak
weeping cherry
red maple
pine sapling
culvert
pine sapling
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POST-WALK CURRICULUM INTEGRATION OPPOPTUNITIES: TO BE CHOSEN AND LED BY THE TEACHER

1. Post Signs of Spring Worksheets and the lists groups made on their Big Backyard walk. Make a Class Chart of what children saw, heard, smelled, and felt in the schoolyard in late spring. Compare with Fall and Winter nature walks.

2. Read the predictions children made before going out. Ask: *What did you actually observe? Did you learn new things by wondering, predicting and then observing?* This is how scientists learn.

3. Either have each child draw a picture of the schoolyard in late spring or do a class mural depicting the schoolyard in late spring. Encourage use of Worksheets and other charts and lists to help children remember.

4. Have children mix up their seasonal drawings and share them with a friend. Can the friend put them in order, fall to winter to spring? How did they decide?

5. Have children list at least three things they like about each season. Chart the children's favorite seasons with a list of reasons.

6. Have each child draw a picture of a wildflower and then of a tree, showing and labeling *roots, stem, leaves, flower,* and *seed* on each drawing. Ask: *Do trees and wildflowers have the same plant parts?* Compare with the drawings they made in the fall.

Walk Leaders - Signs of Spring Walk Report
(Please give to teacher after

Things the children **SAW**:

Things they **HEARD**:

Things they **FELT**:

Things they **SMELLED**:

Things that interested them and questions they asked:

NATURE WALK EVALUATION

(Please leave in Big Backyard Mail Slot)

Walk Leader:_____

Grade and Teacher:_____ Date:_____

Children in Group:_____

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

Closing eyes	Dandelions	Plant parts
Creatures in the grass	Tree leaves	
Plants in the grass	Tree flowers	
Digging with trowel	Tree seeds	

Other:_____

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

Closing eyes	Dandelions	Plant parts
Creatures in the grass	Tree leaves	
Plants in the grass	Tree flowers	
Digging with trowel	Tree seeds	

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**

Other comments or suggestions:

Grade and Teacher:_____ Date:_____