

HARRINGTON GRADE TWO FALL NATURE WALK
Native American Needs

WALK PREPARATION for Grade coordinator/class rep

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


- 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
- The walk should take place as early as possible but BEFORE Columbus Day weekend. Plants are cold sensitive.
- Notify the school nurse of the scheduled walk.
- BBY Coordinator should mark the trees and plants with surveyors tape. Do NOT write the name of the plant on the tape. Use the number on the map. In addition, put tape on two other nearby plants that are clearly NOT the plants described.
 - Hemlock
 - Cedar
- Assemble several dry sticks about 18” long for wetu activity (One stick per group is needed)
- The Big Backyard walk will last about 60 minutes.
- Make sure appropriate materials are in the BBY bags

MATERIALS:

- Clipboard, paper, pencil.
- Identification Sheet for Walk Leaders.
- Identification Sheet for Children.
- Hand lenses.
- Dry sticks about 18” long for wetu discussion.

PRE-WALK ACTIVITIES: TO BE LED BY THE TEACHER

1. Ask: *Think about what you ate for dinner last night. Where did your food come from? Did you provide any of the food your family ate?* (Most will answer that the food came from the supermarket and that adults got the food there.)

 2. Ask: *Imagine you are part of a Native American family having an evening meal 500 years before the first Europeans arrived in Massachusetts. Where does the food you eat come from? What else would you need beside food in order to survive food? (Medicine, clothing, shelter, water.) Could you go to a store for these things? (No Stop and Shop or Home Depot!) Almost everything you eat, your medicine, and the materials needed to make a shelter or clothing have to be found in the woods, fields, streams, and ponds around you. People in your family hunt birds and other animals with bow and arrow and rope traps. They fish in local streams and journey to the seashore for shellfish. They grow some crops such as corn, beans, and pumpkins, and they gather plants that nature offers in forest and field. They may swap some of these items with people from other villages by walking along Massachusetts Ave., thought to be an old Native American trail. People may use this path to go from Concord (then called Musketiquid) to what is now Boston. Or they may carry food or medicine to other villages by canoe along the Concord River.*
- 
- © 1998
T. Pringle
3. Children not only ate food, they helped to grow and harvest crops from the garden. They also helped to find and collect wild food from the forest and field at a very early age. Native American children long ago did not go to a school with desks and chairs and books to learn how to do this. They learned about the world from their elders, older people who taught them how to do basic jobs. Elders taught children to know which plants were safe to use and how to harvest enough of both wild and cultivated plants to survive the long winter. To collect wild food children had to:
 - Identify common plants and know which were safe and which were poisonous.
 - Know which foods were available in different seasons.
 - Walk long distances looking for seasonal foods.

 4. Ask: *If you were Native American children living 500 years ago and were sent out to collect food and other needed supplies in your school's Big Backyard, what do you think you might find? Would you know where to look?* Encourage children to predict what food they might find. *What might be found that could make a shelter?* Tell children that an elder will lead them on a Big Backyard walk to find plants that could be used for food, medicine, building materials, or even toys.

***Note: Notify the BBY walk leader if any child in their group has a tree nut allergy and if any accommodations need to be made for this activity. You must accompany a child who has a life threatening allergy to nuts.**

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

1. Literacy Connection: Ask: *Do children today (including Native American children) know a lot of things Indian children long ago didn't know?* Have children help you to make a list. (Examples: How to read and write and spell, go to a store, how to use electric lights and telephones, play baseball and ice hockey, ride a bicycle or ride in a car or airplane.) Read the book Clambake: A Wampanoag Tradition by Russell Peters, about a modern day Native American boy from Cape Cod.
2. Then ask: *What did Native American children long ago knew that modern children don't know?* Make a list. (Examples: How to identify many trees and plants, where to find foods in the forest in different seasons, how to make toys from natural objects, which plants were poisonous, where to find forest animals and how those animals lived, how to move silently through the forest, how to make a wigwam and weave cattail mats.) Read Tapenum's Day: A Wampanoag Indian Boy in Pilgrim Times by Kate Waters to the children. Contrast this with Samuel Eaton's Day: A Day in the Life of a Pilgrim Boy.
3. Science Connection: Ask: *Which plants or plant parts found on the Big Backyard walk could be used for food now? Would they look for blackberries in winter or even in early summer? Did Indians need to know how plants grow and the right season to look for foods? Could the foods they found be eaten right away? Did they have to be processed first, by grinding, cooking, or drying? How could foods be preserved for winter use?*
4. Social Studies Connection: Wherever and whenever families live, there are some things they all have to do. Have the class make a list:
 - Find or make a shelter from the weather.
 - Find food and know how to prepare it.
 - Find water.
 - Find materials for clothing to keep warm.
 - Teach children what they need to know.
 - Work together as family to meet their needs.
 - Invent games that are fun to play together.Ask: *Does your family do all these things? Did Native American families long ago do all these things? Do Native American families living today do all these things just as your family does?*

HARRINGTON *GRADE TWO FALL* NATURE WALK
Native American Needs

OBJECTIVES:

- Understand how Native Americans living in this area long ago used materials from nature to meet all their needs.
- Learn how Native American “elders” taught children how to identify plants for food and other needs such as shelter, medicine, tools, and toys, which parts are used and when the plant was harvested.
- Identify certain plants as poisonous and that children should not eat anything outside without an “elder” to confirm identification.
- Learn about the native tradition of returning something to nature in thanksgiving when taking a plant for use.

MATERIALS:

- Clipboard, paper, pencil.
- Identification Sheet for Walk Leaders.
- Identification Sheet for Children.
- Hand lenses.
- Dry sticks about 18” long for wetu discussion.

ACTIVITIES:

1. Imagine Native American life in this area before the arrival of European settlers
 - a. Native American life talk (Children sit in a circle)
2. Identify useful and harmful native plants and identify their uses.
 - a. Find the plant (Game)
 - b. Observation
3. Find sticks that bend for making a wetu frame.
4. Grass whistle activity.
5. Wrap up

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

Activity #1: Imagining Native American times.

Find an open grassy area near entrance and sit down or stand in a circle.

Ask:

- *What does “Native American” mean? (A Native American person is someone who is related to the people who lived here before the Europeans came. Native Americans are related to the first people to live in America.)*
- *What do you think your school’s Big Backyard looked like 500 years ago when only Native Americans lived in Lexington? (They would see the stream, woods, and maybe a small clearing for growing crops.)*
- *What can you name that was NOT here 500 years ago? (The school, houses, telephone poles, streets.)*
- *Where did these Native Americans get the things they needed to survive: food, shelter, water? (From nature!) How did they know what to use? Let’s find out.*

The role of the “elder”

Say: *Native people who lived near Lexington long ago also gathered plants for food, shelter and medicine from the woods and fields. Children helped their family gather these plants.*

Ask: *How would children know which plants they could use for food and other needs? At that time, there were no school buildings or books. Older people called “elders” who knew how to recognize plants and their uses would teach the children. They would share what they knew about which plants to use by taking children out into the woods and fields. They would also teach children which plants were harmful.*

Ask: *Do you think some of the plants that Native Americans used in those days might still be growing here near the school? (Yes!) Tell the children:*

Say: *We will find and learn about some of these today!*

****NOTE: Tell the children: *It is never a good idea to put anything from outside in your mouth unless an adult tells you it is OK. Also many dogs visit this area and may have wet on the plant. (This usually stops any thought of eating!)***

NOTE: If you pick part of a living plant, be sure that there are a number of other plants (at least 7) of the same type to prevent overuse. Try not to destroy its root. Also, be sure to say “thank you” to the plant for letting you use it.

Activity #2: Identify useful and harmful native plants and their uses.

As you walk from site to site, have children try to walk silently and have them put on their “deer’s ears” (cup their hands around their ears). Do they see or hear any animals?

Tell children that you are the “elder” and that you will teach them how to find plants used for food and medicine. The same plants that were used 500 years ago by the Native Americans. You will teach them to identify plants by playing a game called “*Find the Plant*” and by **observation**.

Introduce the additional challenge of finding a plant that can be used for a wetu frame. (See Activity #3 below). Gently bend the branches of each plant and compare their flexibility to the dry 18” stick to see which one might be best for making the wetu frame

Find the Plant (Game)

- Game instructions:
 - Near each group of plants, give children clues one at a time from the **Identification Sheet for Walk Leaders** to see if they can locate the plant. Save the illustration of the plant for the last clue.
 - The children need to decide which of the tagged plants is the one described
 - The only plant that fits the description perfectly is the plant on the list.
 - Name the plant and tell about its uses.
- The plants listed below have been tagged along with nearby plants of a different type.
 - Hemlock (#2 on map)
 - Red Cedar (#3 on map)
 - Red Oak (#5 on map)
 - Blackberry (#8 on map)
 - Staghorn Sumac (#10 on map)

Observing and Identifying Plants

This activity allows children to practice their observation skills. To help the children identify a plant pose the following questions as you observe each type of plant:

Ask:

-What do you notice about this plant?

-How is this plant different from the one we just observed? How does it look different? How does it feel different (only if this plant is deemed safe to touch by an “elder”)

-Do you think this tree/plant would have been useful for Native Americans? Why or Why not?

-Was this plant used for food? Shelter? Medicine?

The following plants have been tagged.

- Sugar Maple (#1 on map)
- Crabapple (In front of Administration building)
- Poison Ivy (#4 on map)
- Joe Pye Weed (#7 on map)
- Jewelweed (#6 on map)

Activity #3: Finding materials to use to make a wetu frame.

Ask: How did Native Americans discover what materials to use for making a shelter? They learned through Experimentation and then the information was passed on through the elders.

This activity requires trees with small branches close to the ground and a dry stick for comparison. **It can be done in conjunction at any site with another tree related activity.**

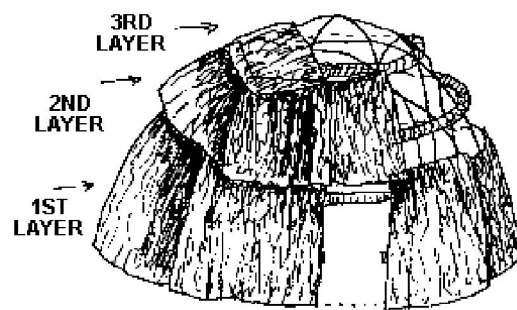
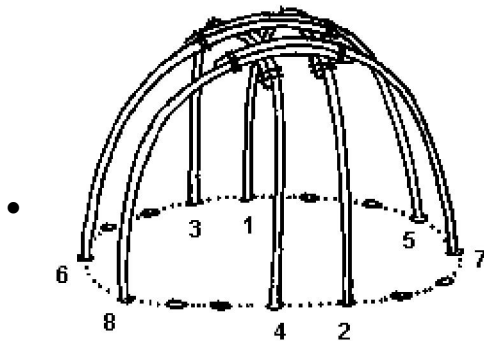
Some tree branches will bend without breaking and others will not. Dry branches on the ground are usually not very flexible.

Say: The Native people who lived in this area a long time ago made homes that looked like upside-down bowls. These homes were made from sticks that were bent into a U shape. After the sticks were bent, the ends were stuck in the ground. Mats made from woven plants or large pieces of bark were tied like shingles to the bent sticks to keep rain out and heat in. This type of home is called a “wetu” (wee-too). Show children pictures of a wetu below.

Say: “Let’s find the best stick to make the frame for the model wetu.”

Finding the best stick that bends:

- The best sticks are flexible but strong enough to hold mats or bark.
- The plants listed have the best sticks that bend and have been tagged.
 - Sugar Maple (#1 on map)
 - Weeping cherry (West of Posion Ivy Tree on map)
- **Additional challenge:** at each plant site visited in **Activity #2** gently bend a branch of the plant and compare its flexibility to the dry 18” stick.
 - **Ask:** “Which stick might be best for making a wetu frame? (Dry sticks break, sumac does not bend, while maple and cherry do)
 - **Ask:** How did we find out which sticks work best? (We tried to bend a number of sticks and observed the thickness and strength of the stick.)
 - **Say:** Native Americans had to experiment with natural materials just like we did to find out which is best.
 - **Ask:** What did you learn? (Live sticks or recently broken ones bend; dry sticks break rather than bend.)
 - **Say:** This information was passed on from one person to another, usually from an older person to a younger person, just like we are doing.



Say: *To make a full sized wetu, whole live young trees were cut. Native Americans have a custom that if the life of a plant or animal is taken to help people survive, the plant or animal must be thanked. Sometimes they even left a small gift. Native people took no more than they needed out of respect. They knew that they needed to care for the natural world because that is where they got all they needed in order to live—food, clothing, shelter, and medicine. Often they spoke of the earth as a mother that cared for them.*

Activity #4: Making a Whistle

Native American children used the leaves (as well as other things found in nature) to make toys.

Tell the children they will be making a whistle. **Gather the group on a grassy area.**

Step 1: Select a blade of grass. This is an important step. The thicker the blade of grass the easier it is to make it whistle. Select blades between 1/4 -and 1/2-inch across. Sometimes picking the grass closer to the root will yield the largest size.

Step 2: Clasp your hands as if you were praying and line your thumbs up so your thumbnails are right next to each other. Turn your thumbs outward slightly until you notice a space between your thumbs. This is where the blade of grass will be positioned.

Step 3: Place the blade of grass in the space between your thumbs. Make sure it is lined up evenly with your thumbs and there are equal amounts of space between the grass and either thumb.

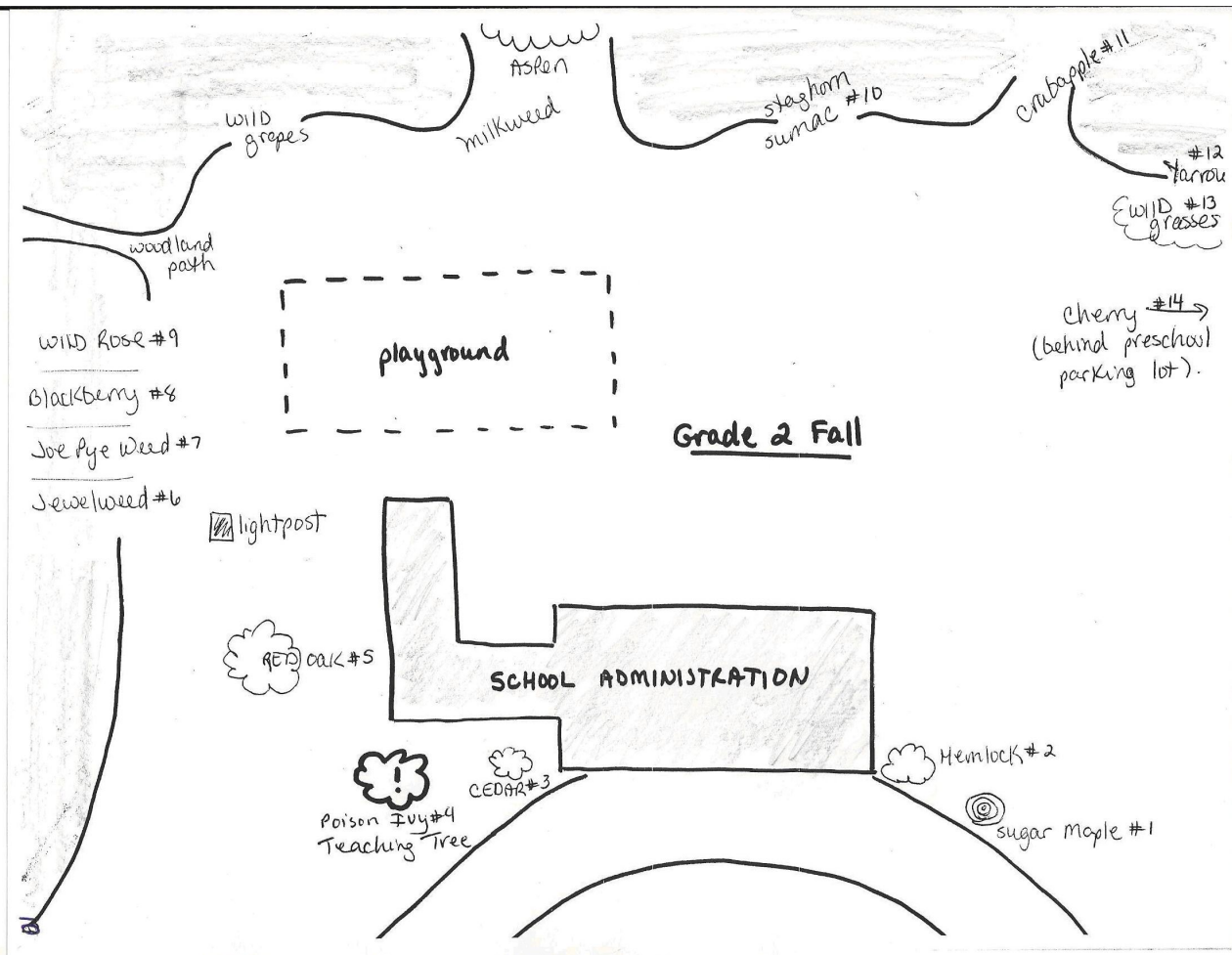
Step 4: Bring your thumbs to your mouth and blow through the hole, over the grass blade. The grass should begin to vibrate and create a loud noise.

Step 5: Reposition the blade of grass, or the manner in which you are blowing if you are unsuccessful.

Activity#5: Wrap-up and return to school.

While walking, ask the following:

- **Ask:** *In the distance we walked today did you find food ? Did you find enough to make a meal? Do you think everyone in a Native American family living 500 years ago helped in finding and collecting food and other useful things for their family? If you lived in those times how would your life be different?*
- *What about Native American families today? Where do they find food, clothes, and medicine? The same places we do—supermarket, clothing stores, and pharmacy. Some Native People still enjoy hunting and fishing and living close to the land. For special occasions like Pow Wows they dress in deerskin and feathers to celebrate the way their ancestors lived. Many Native people still like to be close to nature and are thankful for its gifts.*
- *What did you find most interesting on your nature walk? Give each child a chance to talk about what they enjoyed learning or doing. Ask: Did it make you think about your family today and ways you help your family? Did Native American children long ago know lots of things that children today don't know? What kinds of things? How did they learn? Do you have any questions about Native American life?*



Observe & Identify these Plants:

- Sugar Maple (#1 on map)
- Crabapple (In front of Administration building)
- Poison Ivy (#4 on map)
- Joe Pye Weed (#7 on map)
- Jewelweed (#6 on map)

Find the Plant (Game)

- Hemlock (#2 on map)
- Red Cedar (#3 on map)
- Red Oak (#5 on map)
- Blackberry (#8 on map)
- Staghorn Sumac (#10 on map or opposite playground)

IDENTIFICATION SHEET FOR WALK LEADERS

#1 SUGAR MAPLE:

This plant was very valuable to the Native Americans. Does anyone know what it is?

- What does it feel like? Feel leaves, feel bark
- What does it look like? Compare leaves of Norway maple to sugar maple.
- How are they different? Open leaf stem see if sap is the same for Norway (milky sap) and sugar.
- Native American children would collect the sap in birch bowls in late February. They would boil the water off by putting in hot rocks into the bowls over and over again. This took a long time and it was a lot of work to get very little maple syrup.
- Can you use this stick to help build a wetu frame.

#2 HEMLOCK:

Clues: Green. Needles. White stripes on needles. It has cones. It is a tree.

- Eastern hemlock contains tannins. Inner bark used to make red dyes.
- The bark has astringent activity (burns)
- The leaves have high amounts of Vitamin C (teas)

#3 CRABAPPLE:

This plant was very valuable to the Native Americans. Does anyone know what it is?

- What does it feel like? Feel leaves, feel bark
- What does it look like? Compare apples to crabapples.
- How are they different? Open crabapple see what is inside.
- Does it look like an apple or like a cherry?
- Native American children would harvest them and eat these apples as well as dry them for food for the winter. Mash it up and fruit roll ups with it.

#4 RED CEDAR

Clues: Green, Leaves are soft and bumpy, not flat, Bark-long strips, Tree

- Can this be used to help make the wetu shelter? (weave mats to put on frame, helped tie sticks together.)
- Made rope from bark and roots.
- Compare to the yew, needles are flat.

#5 POISON IVY:

This is poison ivy. What do you know about poison ivy?

- What color is it? (green, changes color in the fall) .Where does it grow? (shade)
- How does it grow? (vines, grows up trees, root hairs visible on vine)
- How many leaves are there? (Leaves of three stay away from me!)

#6 RED, WHITE OAKS:

Clues: Trees with acorns underneath. Red and white oak acorns and leaves are different

- Are these the biggest acorns you have seen?
- Acorns used for flour for bread and also to thicken stews.
- Inner bark used as medicine to treat coughs.
- Red oak acorns are very bitter; white oak acorns are sweeter.
- Some years are much better than others for nuts.



Red oak leaves have points.

White oak leaves are rounded.

**#7 JOE PYE WEED:**

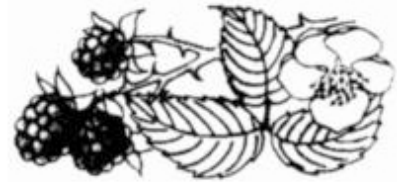
This plant was very valuable to the Native Americans. Does anyone know what it is?

- What does it look like? Compare to blackberry.
- How are they different? (fruit vs. purple flower, thorns, no thorns)
- Joe Pye was a Native American who taught the early settlers how to use the roots to treat typhus.

#8 BLACKBERRIES:

Clues: Small bush. Stems have thorns. Underside of leaves is light green. (Raspberry leaves are whitish underneath). Dried berries may still be seen.

- Collected for food, dried for winter use.
- Used as a medicine for stomach ache and tooth ache.
- Do you see any blackberries on the plants? When could you find lots of blackberries? (Late summer.)

**#9 JEWELWEED:**

This plant was very valuable to the Native Americans. Does anyone know what it is?

- What does it look like? Compare to Joe Pye weed
- How are they different? (purple flowers vs. orange flowers)
- Was used to make salve for poison ivy (like calamine lotion)
- Show children how seeds pop and color of seed inside (also called “touch-me-not”)

**#10 STAGHORN SUMAC:**

Clues: Shrub (small tree). Several leaflets on a stem. Leaflets have toothed edge like a saw. Twigs are thick and have soft center that can be hollowed out. Red berries are found in cone shaped clumps. Has fuzz on twigs, leaves and seeds (like a stag's horns in spring).

- Berries were used to make a cooling drink like lemonade.
- Hollow stems were used to make flutes and spiles (hollow tubes) to tap maple trees.



NATURE WALK EVALUATION

(Please leave in Big Backyard Room)

Walk Leader: _____

1 Grade and Teacher: _____ Date: _____

Children in Group: _____

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

Native American life	Making a whistle	
Find the Plant game	Poison ivy	
Making a wetu	Giving thanks	
Observing Plants		

Other: _____

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

Native American life	Making a whistle	
Find the Plant game	Poison ivy	
Making a wetu	Giving thanks	
Observing Plants		

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: