

## 15 for Trees

4 weeks of activities for grades K-3

Dear Teacher,

### Welcome to **15 for Trees!**

Do your students have some “down” time before or after lunch or at the end of the day before the bell rings? If so, then *15 for Trees* is for you! We designed these **15-minute activities** because we know that you may not have time to fit an entire unit on trees into your yearly schedule—it’s tough enough to cover the required material! However, we think time spent on our connections to trees and the environment, and on our responsibilities to the Earth, is of utmost importance. Our well-being depends on it!

Each week explores a different topic about trees and our connections to the environment: *Trees and Planet Earth*, *Trees and New York City*, *Trees and New York City Neighborhoods*, and *Trees and Me*. Each activity begins with a question and is designed as a mini-investigation where students can apply prior knowledge and find their own meaning.

With your needs in mind, the activities take little preparation and generally require few materials. Vocabulary, suggested reading lists, and resource lists are found at the end of each activity. Extensions are included that allow your students to follow their interests; they are designed to be fun, engaging, and thought-provoking. Activities are aligned with New York Science and Language Arts standards; objectives are written for each activity.

*15 for Trees* follows best practices in education and is designed to meet the needs of diverse learners. Activities are varied to keep interests high and support a variety of student intelligences and ways of knowing; however, they can be easily modified based on the strengths and needs of your students. Each activity uses higher-order thinking skills and promotes skills and behaviors for life-long learning.

Focusing on our need to be stewards of trees and the Earth, the activities are designed to empower students to affect positive change, to realize their own potential, and to engender a sense of responsibility and civic duty.

**We hope that you enjoy *15 for Trees*. Together, we can make a difference!**

Sincerely,

Akiima Price

Chief of Education and Programs  
New York Restoration Project

If you have any questions or comments, please contact New York Restoration Project at 212.333.2552.



INTRO  
**a**

## 15 for Trees Curriculum Educator Guide

### Activities Overview

The *15 for Trees* curriculum is composed of interdisciplinary activities designed as mini-investigations in which students answer daily questions to learn about trees and environmental connections. These investigations follow best practices in education (Zemelman et al., 2005); they are student-centered, experiential, authentic, holistic, expressive, reflective, social, collaborative, democratic, cognitive, developmental, constructivist, and challenging.

**Student-centered** activities take into account students' interests and questions and take advantage of students' natural curiosities such as exploring the schoolyard for natural artifacts or looking for animals and habitat elements within the boundaries of a Hula Hoop®.

**Experiential and authentic** exercises keep students active in purposeful, hands-on exploration of the natural world and urban environments. Extension activities encourage reading, analyzing, looking, listening, comparing, drawing, writing, etc. By "doing," students will find their connections to trees.

**Holistic** approaches involve life-long learning skills such as considering the ways that things are connected and the impacts of actions. The interdisciplinary focus of the activities immerses students and invests in them as whole learners.

Each activity involves **expressive** exercises that encourage students to share what they have learned and **reflective** exercises that encourage students to review what they've learned. Extension activities allow students to create a variety of products using a variety of media and to follow their interests.

Students learn best in **social** situations that are engaging and fun. Team games, group tasks and discussions, and other **collaborative** exercises help students learn from and with one another.

**Democratic** approaches encourage students to be a part of the classroom community and the community of learners. By working together, students will find solutions to the daily investigations and will build cooperative skills and concepts.

Students will use **cognitive** exercises to develop "higher order" thinking skills such as reasoning (e.g., writing captions for pictures of street trees), categorization (e.g., grouping the benefits of trees), drawing inferences (e.g., how their daily actions impact the health of the Earth), and synthesis (e.g., finding the connections between themselves and trees). Each activity ends with a brief discussion time and a challenge that encourages students to extend their thinking and consider other opinions.

Each *15 for Trees* activity is designed to be age-appropriate and includes **developmental** strategies that encourage positive learning steps. Activities also include **constructivist** approaches that help students make sense of new content and reinvent it. Activities immerse students in different ways of knowing and learning (such as using their senses to "get to know" trees and leaves) and reinforce students' own discoveries about trees.

Students are given a challenge at the end of each activity. **Challenging** exercises nurture students' capacity to try new things, apply what they've learned, and think for themselves. With a "no fail" sense of adventure and exploration, *15 for Trees* activities create a safe environment where students can learn about trees, the environment, and themselves.

INTRO **b**

## 15 for Trees Curriculum

### Educator Guide (continued)

#### Assessment Overview

##### Formative assessments:

Each *15 for Trees* activity contains a “quick check for understanding,” verbal probes, and evaluations of group discussions. However, you can add other formative assessments such as:

1. **Classroom or individual KWL charts** at the beginning of Week 1 or at the beginning of each week.
2. **Journals.** Include students’ responses to the challenges, extension activities, any reflections, and the results of activities. If you use three-ring binders for journals, include copies of scavenger hunt worksheets, etc. At the end of each week, ask students to create a web in their journals to show the relationships between the elements learned. Use the journals as “response” journals: add questions, positive feedback, encouraging comments, and challenges.
3. **Quizzes.**
4. **Classroom or individual portfolios.**



5. **Nature journals.** At the beginning of Week 1, start nature journals using memo tablets, downloaded journal pages, or plain paper in a three-ring binder. Go outside for 10-15 minutes a day, if possible; on rainy days, have students stand at your classroom windows. Encourage students to add a variety of elements, such as sketches, free writing, poetry, thoughts, and reflections.

See the Sierra Club’s “Keeping a Nature Journal” at [www.sierraclub.org/education/nature\\_journal.asp](http://www.sierraclub.org/education/nature_journal.asp) and the National Wildlife Federation’s “Create Your Own Nature Journal” at [www.nwf.org/kidzone/kzPage.cfm?siteId=3&departmentId=152](http://www.nwf.org/kidzone/kzPage.cfm?siteId=3&departmentId=152).

##### Summative assessments:

*15 for Trees* activities are designed to be short in duration, but the following summative assessments can be added:

1. **Performance tasks.**
2. **Weekly pledge to help trees and the environment:** Include descriptions of specific action(s) that will be taken, an action plan, an evaluation, and background information gathered from research.
3. **“You can make a difference” proposals and projects:** Proposals/projects initiated during Week 4, *Trees and Me*, should reflect how well students have internalized “the story” of trees. Students should also state their personal involvement (e.g., “This is important to me because...”).

##### Group/self-assessments and peer review:

Many of the *15 for Trees* activities involve cooperative groups. Students can assess the effectiveness of the entire group and their roles within the groups on such things as willingness to contribute, sharing, taking turns, helping, and asking for help. Students can also assess each other.

##### References:

- Gisel, Bonnie J. 2002. (Sierra Club.) “Keeping a nature journal.” [http://www.sierraclub.org/education/nature\\_journal.asp](http://www.sierraclub.org/education/nature_journal.asp)
- National Wildlife Federation. 2008. “Create your own nature journal.” <http://www.nwf.org/kidzone/kzPage.cfm?siteId=3&departmentId=152>
- Zemelman, S., H. Daniels, and A.A. Hyde. 2005. *Today’s standards for teaching and learning in America’s schools*. Heinemann. 0325007446.

WEEK  
1

ACTIVITY  
1

## Trees and Planet Earth

### How do you do, tree?

(Adapted from Parrella, 1995)

#### Location:

Outside.

#### Materials:

Access to a tree or trees.

#### Summary:

Students use their senses to meet a tree.

#### Objective:

Describe a tree using sensory details.

Tell students that you will be learning about trees over the next couple of weeks; show them a simplified schedule.

#### Hook:

"How would you like to meet a tree? First, let's practice our introductions." Ask students to sit in a circle. Have them "pass" a handshake and say, "How do you do, I'm \_\_\_\_\_ (student's name)."

Gather students around a tree or trees; review the five senses. Ask students to close their eyes and spend one quiet minute with a tree: Touch the tree bark; note the texture (smooth or with ridges), the smell, if it is thick or thin and papery, if it clings tightly to the tree or if it is loose. Feel how big the tree is, listen to any sounds the tree makes, touch and smell a leaf, etc.

Do a quick check for understanding: Did students enjoy meeting a tree? Were they surprised by anything? What would the tree say if it could talk? Thank students and give them a challenge: Take a minute and meet a tree near your home. How is it similar to or different from the schoolyard tree(s)?

#### Variations:

1. Have students work as partners where one partner is blindfolded and the other is on safety patrol; then they switch roles. Model the activity first, showing students how to be safe (using verbal guidance...). Use paper bags or winter hats for blindfolds. Also try this activity where there are a number of trees and have

#### Extensions:

- **Poet tree.** Cut tree-shapes out of paper and write poems on them about schoolyard trees and what they might say if they could speak.
- **Using your senses.** Have students draw a picture of the tree that they met and label their sensory discoveries.
- **Sensory Map.** Create a sensory map to the trees and green spaces in your schoolyard. See if other classes can follow your map; have some tree-related snacks, like apples, waiting at the end. See David Sobel's *Mapmaking with Children: Sense of Place Education for the Elementary Years* for schoolyard mapping activities.

the blindfolded partner find his/her tree after being led a short distance away.

#### Vocabulary:

**The five senses.** The way that we understand and perceive the world: Sight, touch, smell, hearing, and taste.

#### Suggested Reading List:

Hosta, Dar. 2007. *If I were a tree*. Brown Dog Books. 0972196730.

Morgan, Jancy. 2007. *If this old tree could talk to me!* Leathers Publishing. 1585974390.

#### Teacher Resources:

Sobel, David. 1998. *Mapmaking with children: Sense of place education for the elementary years*. Heinemann. 0325000425.

#### References:

Parrella, Deborah. 1995. *Project seasons: Hands-on activities for discovering the wonders of the world*. 2nd edition. Shelburne Farms. 0964216302.

## Trees and Planet Earth

### What's it like to be a tree?

#### Location:

Inside or out.

#### Materials:

Marker, whiteboard, script (included).

#### Optional:

CD of forest sounds (see Teacher Resources) and a CD player.

#### Summary:

Students “become” trees in a forest and learn about the parts of trees.

#### Objective:

List different parts of a tree, such as roots, trunk, branches, leaves, etc.

#### Hook:

Plant your feet, make your legs stiff like a trunk, and hold your arms out like tree branches. Ask students to

guess what you are. “Today, we are going to see what it’s like to be a tree. Who can tell me the parts of a tree (like the one/ones we met yesterday)?” Draw a quick picture of a tree on a whiteboard and label the parts as students respond. Add/describe any tree part that students do not mention (roots, trunk, bark, branches, leaves, flowers, and fruit with seeds).

Have students stand up and then read the script while students act it out. If necessary, model different types of movement or sounds: Roots (feet reach out and are then “planted”), trunk (legs), bark (legs), branches (arms that bend and move), leaves (hands that can grab sunlight to make food), flowers (head), and fruit with seeds (head that can be shaken).

#### Script:

(Optional: modify to match a CD of forest sounds; see Teacher Resources)

“Close your eyes and let your mind be still. Breathe in and out. Imagine that you are a tree growing beside a rushing stream in a great forest (make waterfall sounds). Hear the water falling down and the birds singing. See the clouds and the blue sky overhead. Your roots reach down into the ground searching for cool, delicious water to drink. Your trunk is solid, but inside, water from your roots rises up and out to your

branches and leaves (make sucking sounds). What’s this... ants climbing, marching, climbing, marching... on your bark? Ha Ha! Good thing that your bark is tough. Your branches are strong, yet they are able to move with the winds that sweep through the forest (make wind sounds). Feel the warm sun. You are covered with dark green, beautiful leaves that reach out to catch the sun’s rays and make food through photosynthesis (see Vocabulary). With so much food, you are able to make flowers and then fruit with seeds inside. Here is a bird pecking at your fruit (make pecking noises)! Your fruit falls to ground where your seeds will sprout, take root, and grow.”

Do a quick check for understanding: Did students enjoy being a tree? What specific part did they like the most? Thank students and give them a challenge: On your way home from school today, notice a tree. See if you can find all of the tree parts, from the roots all the way up to the leaves. Are there any flowers or fruit on your tree?

#### Extensions:

- **Trees for all seasons.** Have students act out a year-in-the-life of a tree, sprouting new leaves and flower buds in the spring, capturing sunlight all summer long with green leaves, reacting to cooler weather with colorful leaves in autumn, and losing leaves and “sleeping” in the winter.
- **Trees get moving!** Dance to songs from Banana Slug String Band, such as “Roots, Stems, Leaves” and “I’m a Tree” (from the CD *Singing in Our Garden*). See their website, [www.bananaslugstringband.com/](http://www.bananaslugstringband.com/).

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WEEK 1	ACTIVITY 2 <sub>B</sub>	Trees and Planet Earth
		What's it like to be a tree? (continued)
<p><b>Vocabulary:</b></p> <p><b>Photosynthesis.</b> The process in which trees and plants convert energy from the sun (sunlight) into sugars and food energy. Chlorophyll and other green pigments in leaves capture sunlight, and then with water and carbon dioxide, produce sugars; oxygen is a by-product and is released into the atmosphere.</p> <p><b>Suggested Reading List:</b></p> <p>Burns, Diane. 1995. <i>Trees, leaves, and bark</i>. (Take-along books.) NorthWord Books for Young Readers. 1559716282.</p> <p>Gibbons, Gail. 2002. <i>Tell me tree: All about trees for kids</i>. Little, Brown Young Readers. 0316309036.</p> <p>Hosta, Dar. 2007. <i>If I were a tree</i>. Brown Dog Books. 0972196730.</p> <p><b>Teacher Resources:</b></p> <p>Banana Slug String Band. 2002. <i>Singing in our garden</i>. Label: Slug Music. ASIN: B000092OK5.</p> <p>Sounds of the Earth Series. 2001. <i>Sounds of the Earth: Forest</i>. Label: Oreade Music. ASIN: B00005A0BT</p>		





WEEK  
**1**

ACTIVITY  
**3<sub>A</sub>**

## Trees and Planet Earth

### Where are trees found?

#### Location:

Inside or out.

#### Materials:

Marker, whiteboard, picture of palm tree (included), scripts (included).

#### Summary:

Students connect with world trees by “becoming” trees from around the globe.

#### Objective:

State the facts that there are a variety of trees and that different trees grow in different places around the world.

#### Hook:

Close your eyes and make ocean sounds. “Has anyone ever been to a beach where there are palm trees/Has anyone ever seen a palm tree? Today, let’s think about different types of trees and where they are found.” Show students a picture of a coconut palm (included); ask students to name the type of tree (coconut) and where it might grow (Florida, Hawaii, the tropics...). Can students think of other trees and their locations?

Have students stand up and form a circle; read the scripts (as time allows) while students act them out.

#### Script:

**1. Coconut palm, Sulu, Philippines, Asia.** “I am a coconut palm tree and I grow in the Philippines. I love the beach! Do you hear the waves crashing (make wave sounds)? My roots find water that filters through the crunchy sand (make crunching sounds). See my bent trunk? It is strong, but it has to hold up a lot of weight. Since I don’t have any branches, all of my leaves grow on top at my crown. Some of my leaves are 20-feet long! Coconuts are heavy, too. Some drop (make “plopping” sounds) to the ground to make new plants and some are eaten by people and animals.”

**2. Giant redwood, California, U.S.A., North America.** “I am a giant redwood tree and I grow in the misty wilderness of California’s northern forests. I am

400-years old and I am 300-feet tall! That means that I am almost as tall as a football field! You might be surprised to know that because my roots don’t go deep into the soil, my neighbor trees help to hold me up—our roots “stick together” and our trunks block the wind like a wall (make wind sounds). Insects and pests (make buzzing sounds) don’t bother me—my bark is over a foot thick!”

#### 3. Whistling thorn acacia tree, Serengeti Plain, Africa.

“I am the whistling thorn acacia tree. I live in Africa on the sun-parched plains along with giraffes and elephants. I am covered with three-inch long thorns and some shorter thorns, too. Ants drill holes in my short thorns (make drilling sounds), so that when the wind blows, I sound like a whistle (make whistling sounds)! The ants like to drink the sweet nectar that I make at the base of my leaves (make slurping sounds). I have lots of leaves and they are small, but their small size keeps them from losing moisture to the hot, dry air.”

#### 4. Cacao tree, Amazon River Basin, Brazil, South America.

“I am a cacao tree and I live in the tropical rainforests of Brazil. I thrive in the shady understory level and grow to about 15-feet tall. I have small red flowers that are pollinated by flies; my fruit is a bright yellow pod that looks like a melon and sometimes grows right on my trunk. You know me by my seeds, which—when pounded—people call chocolate!”

Do a quick check for understanding: Have students vote on their favorite tree from the activity; encourage them to say the name of the tree and where it is found. Thank students and give them a challenge: Think of three ways that these trees are like our schoolyard tree(s).

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WEEK  
**1**

ACTIVITY  
**3<sub>B</sub>**

## Trees and Planet Earth

### Where are trees found? (continued)

#### Extensions:

- **World trees.** On a bulletin board, attach a large world map or cut continent shapes out of colored paper and label them. Add pictures/descriptions of coconut palms, giant redwoods, acacia trees, and cacao trees; use thumbtacks to mark the locations where they grow. Then read children's books about trees from around the world and add more pictures/descriptions. Introduce the books by adding thumbtacks to the map.
- **Tree research and presentation.** Focus on trees from a particular continent or region and conduct research. How big are the trees? What do their leaves, flowers, and fruit look like? Do the trees provide food, building supplies, or products for people? How about homes for animals? Encourage students to present their findings in different ways, like creating dioramas or writing and performing plays or puppet shows.

Chamberlin, Mary and Rich. 2006. *Mama Panya's pancakes: A village tale from Kenya*. Barefoot Books. 1905236646.

Cherry, Lynne. 2000. *The great kapok tree: A tale of the Amazon rainforest*. Voyager Books. 0152026142.

Cherry, Lynne. 2004. *The sea, the storm, and the mangrove tangle*. Farrar, Straus and Giroux. 0374364826.

Iverson, Diane. 1999. *My favorite tree: Terrific trees of North America*. Dawn Publications. 1883220939.

Miller, Debbie S. 2003. *Are trees alive?* Walker Books for Young Readers. 0802788016.

Stock, Catherine. 1993. *Where are you going, Manyoni?* HarperCollins. 0688103529.

Yolan, Jane. 1997. *Welcome to the green house*. Putnam Juvenile. 0698114450.

#### Vocabulary:

None.

#### Suggested Reading List:

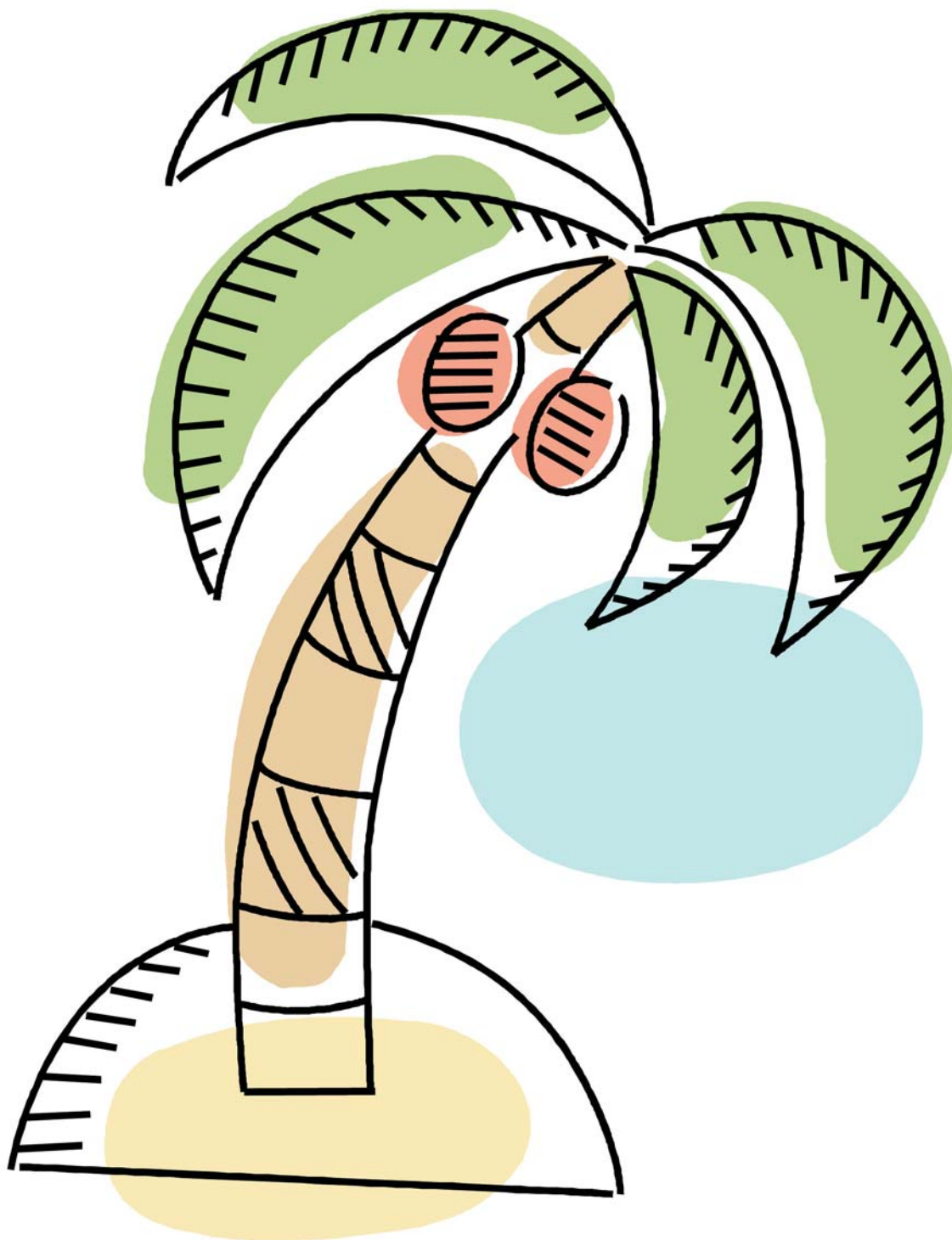
Bash, Barbara. 2002. *Ancient ones: The world of the old-growth Douglas fir*. Gibbs Smith, Publisher. 1578050812.

Bash, Barbara. 2002. *In the heart of the village: The world of the Indian banyan tree*. Gibbs Smith, Publisher. 1578050804.

Chapman, David. 2007. *Daddy and I explore... mangroves*. Sunray Publishing. 1894916980.







WEEK  
1

ACTIVITY  
4<sub>A</sub>

## Trees and Planet Earth

### What products do we get from trees?

#### Location:

Inside.

#### Materials:

Marker, whiteboard, scavenger list (included)—one for each pair of students, markers or pencils.

**Summary:** Students learn about tree products made from wood, wood pulp, tree sap, and cork and search for tree products on a classroom scavenger hunt.

#### Objective:

List five products that come from trees and state

the importance of trees as sources for products used on a daily basis.

#### Hook:

Close your eyes: “I’m just trying to imagine a world without things made from trees. Close your eyes and imagine with me. What would we have to do without?”

List students’ answers on a whiteboard. Group answers into four categories using the students’ answers to explain each: Things made from wood (hard inner fibers); things made from wood pulp (ground-up wood); things made from tree sap (the water and nutrients that move through a tree), and things made from cork (the fibers under tree bark) (see Vocabulary).

Tell students that they are going to go on a scavenger hunt around the classroom to find things made from trees. Have students work in pairs and set a time limit (about two minutes or until a pair finds the entire list). Wish them luck!

Do a quick check for understanding: Were students surprised to learn that some of the products were made from trees? Which product was the most surprising? Thank students and give them a challenge: When you get home today, take a few minutes and see how many tree products you can find in your house. Try to find 10 things.

#### Extensions:

- **Missing objects.** Ask students to stand facing away from you and then place eight to 10 tree-related items (like a pencil, a notebook, a book, a piece of paper, a piece of your students’ artwork, a box of crayons, etc.) on the floor. Cover the items with a towel, a jacket, a sheet, or a piece of chart paper. Ask students to turn around and then lift the cover. Give students 15 seconds to memorize what is there; when time is up, cover the items again and ask students to list them. Variation: Play in rounds and for each round, remove an item. Can students name the missing item?

- **Thank you, trees!** Take some time to thank trees for all the products that they give us. Sing “I Just Want to Thank the Trees” to the tune of “Farmer in the Dell.”

Trees are really great  
Oh trees are really great  
I just want to thank the trees  
Trees are really great.

Pencils help me write  
Oh pencils help me write  
I just want to thank the trees  
Pencils help me write.

Crayons help me draw....  
Books help me learn....  
Tape helps me create....

- **Learn how to recycle paper.** Invite your town’s recycling manager into the classroom to talk to students or conduct online research (See Scholastic’s “Recycling Starts with You,” <http://teacher.scholastic.com/lessonplans/recycling/> and the Paper Industry Association Council’s “School Recycling” Page <http://www.paperrecycles.org/recycling/school/index.html>). Work on ways to reduce your overall paper consumption. Let parents know about your recycling efforts; host a parent night that your students lead.

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WEEK  
1

ACTIVITY  
4<sub>B</sub>

## Trees and Planet Earth

### What products do we get from trees? (continued)

#### Extensions (continued):

- **Reuse those tree products!** With fallen sticks, acorns, pinecones and some string, create mobiles; add some metal pieces, such as foil strips or cut aluminum pie pans, and make wind chimes. Craft a pencil holder by gluing sticks to a used frozen juice container. Cut a paper towel tube in half, then decorate and tape the two halves together to make a pair of “binoculars.”

#### Vocabulary:

**Wood.** A tree’s hard inner fibers (heartwood) that give it structure and support. Trees used for wood products are “hardwood” trees, such as oaks, maples, cherry, and walnut trees. Things made from wood: Furniture, beds, wood and laminate flooring, lumber for housing and construction, rafters and trusses for roofs, building materials such as fiberboard and plywood, particle board (used in furniture and clipboards), wooden pallets, musical instruments, chopsticks, toothpicks, kitchen utensils, bowls, clocks, frames, outdoor furniture, baseball bats, toys, boats, and pencils.

**Wood pulp.** Ground-up wood, commonly used to make paper. Trees used to make wood pulp have soft inner wood (“softwood trees”), such as pines, spruces, firs, and hemlocks. Things made from wood pulp: Paper products (e.g., money, tickets, notebooks, lined paper, printer paper, construction paper, books, magazines, newspapers, artwork, posters, envelopes, wrapping paper, wallpaper, boxes, paper bags, toilet paper, paper towels, facial tissues, wax paper, and sandpaper.)

**Tree sap.** The water and dissolved nutrients that move from a tree’s roots to the rest of the tree, or the water and dissolved sugars that move from a tree’s leaves. Things made from tree sap: Latex used in rubber production (erasers), paint, chewing gum, and candy wrappers; resins used to make perfumes,

incense, varnishes, tape, glue, cement, and skateboard decks.

**Cork.** A substance derived from fibers found under tree bark. Things made from cork: Bulletin boards, bottle stoppers, fishing rods, fishing floats, woodwind instruments, and floor tiles.

#### Suggested Reading List:

Lauber, Patricia. 1994. *Be a friend to trees.* HarperTrophy. 0064451208.

Silverstein, Shel. 2005. *The giving tree.* HarperCollins. 0060840986.

Udry, Janice M. 1987. *A tree is nice.* HarperTrophy. 0064431479.

#### Teacher Resources:

Paper Industry Association Council. 2008. “School recycling.” [http://www.paperrecycles.org/school\\_recycling/index.html](http://www.paperrecycles.org/school_recycling/index.html)

Scholastic. 2008. “Recycling starts with you.” <http://teacher.scholastic.com/lessonplans/recycling/>

## Things Made from Trees

### Scavenger Hunt



**Book**



**Table**



**Tape**



**Glue**



**Paint**



**Tissues**

**Box**



**Pencil**

**Paper**

**Clipboard**

### Bulletin Board



### Notebook



### Artwork



WEEK  
**1**

ACTIVITY  
**5<sub>A</sub>**

## Trees and Planet Earth

### What food do we get from trees?

#### Location:

Inside.

#### Materials:

Whiteboard; marker;  
blender; orange  
juice; bananas\*;  
frozen peaches;  
cups; napkins; other  
food from trees  
placed in a bag:  
e.g., cinnamon,  
maple syrup, a bag  
of walnuts... (Use  
recycled paper  
products when  
possible.)

#### Summary:

Students brainstorm lists  
of foods that come from  
trees and make a tree-food  
treat.

#### Objective:

List five foods that come  
from trees and state the  
importance of trees as  
sources of food eaten on  
a daily basis.

Have students sit in a  
circle.

#### Hook:

Begin by pouring some  
orange juice in a cup and  
taking a sip: "I'm getting

ready to have a little snack from a tree—some orange  
juice!" Ask students to name other foods that they get  
from trees; list these on the board. One at a time, take  
some tree-food items out of a brown paper "mystery"  
bag; have students say or guess what the items are.  
Then ask students if they would like to join you for a  
tree-fruit smoothie.

Make and enjoy the smoothies and then do a quick  
check for understanding: Play a game where students  
try to name five tree foods in 15 seconds, then 10  
foods, then 15. Thank students and give them a  
challenge: Try to find at least three tree foods in your  
dinner tonight and breakfast tomorrow.

\* Bananas actually come from plants classified as  
grasses (instead of trees).

#### Extensions:

- **Thanks, trees!** Cut out pictures of foods from  
magazines and then analyze them: Do some of the  
ingredients come from trees? Tape pictures to a  
piece of chart paper made to look like a restaurant  
menu. Ask students to pick out their favorite foods  
and then thank the responsible tree(s) by  
completing this sentence: I'd like to thank you,  
tree(s), for \_\_\_\_\_, one of my favorite foods.
- **Wow, look at this!** Sit in a circle and then pass  
around some unusual foods from trees. Use your  
senses to help you guess what the foods are. If  
you have a world map, attach pictures of the foods  
and place thumbtacks on the locations where they  
are grown. Food suggestions: Stick cinnamon from  
India, a mango from Mexico, a whole coconut from  
the Philippines, a pomegranate from California...
- **Sing about it!** Sing "I Just Want To Thank The  
Trees" to the tune of "The Farmer in the Dell."

Trees are really great  
Oh trees are really great  
I just want to thank the trees  
Trees are really great.

Apples are so good  
Apples are so good  
I just want to thank the trees  
Apples are so good.

Yummy choc-o-late...  
I'm craving cinnamon...  
Maple syrup is so sweet...

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WEEK 1	ACTIVITY 5 <sub>B</sub>	Trees and Planet Earth
		What food do we get from trees? (continued)
<p><b>Variations:</b></p> <p>1. Make a tree-fruit salad and include a few unusual treats like star fruit and mangoes. Invite parents to join you or ask parent volunteers to bring in the salad ingredients.</p> <p><b>Vocabulary:</b></p> <p>None.</p> <p><b>Suggested Reading List:</b></p> <p>Markle, Sandra. 2004. <i>Smart about chocolate: A sweet history</i> (Smart about History). Grosset &amp; Dunlap. 0448434806.</p> <p>Priceman, Marjorie. 1996. <i>How to make an apple pie and see the world</i>. Dragonfly Books. 06798808636.</p> <p>Thompson, Lauren. 2007. <i>The apple pie that Papa baked</i>. Simon &amp; Schuster Children's Publishing. 1416912401.</p>		





WEEK **2** ACTIVITY **1<sub>A</sub>**

## Trees and New York City

### Are there trees in my city?

#### Location:

Inside.

#### Materials:

Pictures of New York City attractions (included or use your own), whiteboard, marker, construction paper, and a pair of scissors, game directions (included).

#### Summary:

Students “ride a city bus” in a game that demonstrates the importance of trees, parks, and green spaces to New York City.

#### Objective:

Describe trees, parks, or green spaces as being important to New York City and give evidence why.

Before class, cut rectangle “tickets” out of construc-

tion paper; each student will get one ticket, either green for trees/parks or another color (e.g., white) for buildings/sites. For a class of 26 students, for example, cut 13 green tickets and 13 white tickets. Print a copy of the game directions.

#### Hook:

Show students the pictures of the Statue of Liberty and the Empire State Building or other pictures of famous New York City attractions. “Our city has lots of things to see, doesn’t it? Let’s list some of New York City’s attractions.” Help students list attractions, especially ones that are in your borough or that your particular students may be familiar with; list buildings and sites first and parks and green spaces (see Vocabulary) second (see Teacher Resources for a list of buildings and parks). Discuss the fact that trees and parks are very important to New York City and that there are many different places in the city where trees are found or planted.

Ask students if they would like to play a game about riding a city bus.

#### City Bus Ride:

Have students sit on the floor on their legs, one student directly behind another in a line (like they are sitting in a bus); they are the “passengers.” Note: Students may

take turns being the first passenger. Go over the types of directions that will be given and show students the action for each direction (see list). Give each student either a white or a green ticket. Students with a white ticket should stand up when they hear, “Sites to see,” and students with a green ticket should stand up when they hear, “Trees for me.” Students should sit back down when they hear “Bus stop!” The last student to sit down after hearing “Bus Stop!” has to “get off the bus” and wait until the next bus stop to get back on again. As each student gets off the bus, he/she hands his/her ticket to a student who is waiting to get back on the bus. Note: Students may get a different color ticket and so their roles may change. Start by clapping out a slow rhythm, then begin adding directions. Set a time limit and play for that amount of time.

Do a quick check for understanding: Are trees and parks important to New York City? How can you tell? Do you have a favorite tree or park? Thank students and give them a challenge: On your way home today, look for trees. Try to find five different places where trees are found.

#### Variations:

1. Before saying “Sites to see” or “Trees for me,” say the name of a building or park/ green space from your original list.
2. For the Hook, show students tourist brochures or tourist maps of New York City instead of pictures of the Statue of Liberty; point out all of the trees, parks, and green spaces.
3. For the Hook, have students sit in a circle; then ask them to stand and then sit back down again if they’ve ever:

Ridden a city bus.  
Played in Central Park.  
Seen the Statue of Liberty.  
Been to the Bronx Zoo.  
Ridden across the Brooklyn Bridge

>>>

WEEK  
**2**

ACTIVITY  
**1<sub>B</sub>**

## Trees and New York City

### Are there trees in my city? (continued)

Modify and add to this list, naming buildings/parks/green spaces that your students are familiar with. Please be careful with this variation; some students may be uncomfortable with their lack of travel experiences.

4. Play a "Follow the Leader"-type version of "City Bus Ride" outside (or in a gym) with no student eliminations. Place about five orange field cones or bowling pins and five Hula Hoops® in random order on an area of blacktop so that there is about 25 feet between each; the cones or pins are "buildings," the Hoops are "parks," and the remaining blacktop represents "streets." Have students form a long line and have each student place one hand on the shoulder of the person in front of them; the first person in line is the "bus driver" and the rest of the students are "passengers."

The bus driver should begin walking through the site in any direction (with the passengers following). Call out directions similar to the indoor version, except when you call, "Sites to see" (or simply "Buildings"), the bus driver should walk towards a cone or pin; when you call, "Trees for me" (or simply "Parks"), the driver should walk towards a Hula Hoop. Students should follow the other directions as in the indoor version, except they must keep one hand on the student in front of them. The object of the game is to stay in one line without breaking contact. Shout, "Bus Stop!" to stop all movement and allow the student at the end of the line to take a turn as the bus driver.

#### Variation:

(Adapted from the game *Toby Terrific Turtle* from Luvmour and Luvmour, 2007) Have all students huddle under a blanket or sheet and move together, following the lead of the bus driver. Give the directions "Sites to see" and "Trees for me" only. Note: It may help if students hold hands.

#### Extensions:

- **New York City landscape.** (Adapted from Luvmour and Luvmour, 2007) Create a collage of New York City showing some of the sites, parks, and green spaces. Tape a long roll of paper or pieces of plain chart paper to a blackboard or wall. Allow each student to add to the collage with paints, pictures cut from magazines, construction paper, etc. Make a title for the collage that references the importance of trees and green spaces in New York City.

#### Vocabulary:

**Green space.** Any area that is green with plants (trees, grass, flowers, etc.).

#### Suggested Reading List:

Jakobsen, Kathy. 2003. *My New York*. Anniversary edition. Little, Brown Young Readers. 0316927112.

Melmed, Laura K. 2005. *New York, New York: The Big Apple from A to Z*. 1st edition. HarperCollins. 0060548762.

Yolen, Jane (editor). 1996. *Sky scrape/city scape: Poems of city life*. 1st edition. Boyd's Mill Press. 1563971798.

#### Teacher Resources:

Some buildings and famous sites: Statue of Liberty, F.A.O. Schwarz Toys, Times Square, Brooklyn Bridge, Mets or Yankee Stadiums, Coney Island, Empire State Building, Broadway, etc.

Some parks and green spaces: Central Park, Bronx Zoo, Bryant Park, Battery Park, Gramercy Park, Prospect Park, Highbridge Park, Brooklyn Botanic Garden, Governor's Island, Alley Pond Environmental Center, etc.

#### References:

Luvmur, Sambhava and Luvmour, Josette. 2007. *Everyone wins! Cooperative games and activities*. New edition. New Society Publishers. 0865715874.

## Trees and New York City

### City Bus Ride

Teacher directions	Student reactions
<b>Sites to see!</b>	Students with building tickets stand up.
<b>Trees for me!</b>	Students with trees/parks tickets stand up.
<b>Drive the bus!</b>	Students act like they are turning a steering wheel.
<b>Honk the horn!</b>	Students say “Beep Beep!” and act like they’re honking a horn.
<b>Watch out!</b>	Students lean to one side.
<b>Look at that!</b>	Students point.
<b>Pothole!</b>	Students bump up and down.
<b>Rain, rain!</b>	Students move their hands like wipers.
<b>Bus stop!</b>	Students stop whatever they are doing.

**Examples of direction sequences** (add a clapping rhythm):

Drive the bus; Honk the horn; Watch out; Look at that; Pothole; Rain, rain; **Sites to see**;  
Drive the bus; Honk the horn; Bus stop.

Drive the bus; Honk the horn; Watch out; **Trees for me**; Look at that; Pothole; Bus stop.

Drive the bus; Honk the horn; Watch out; Look at that; Pothole; **Sites to see**; Bus stop.

Drive the bus; Honk the horn; **Sites to see**; Watch out; **Trees for me**; Look at that;  
Pothole; Bus stop.

Drive the bus; **Trees for me**; Honk the horn; Watch out; Bus stop.



## Trees and New York City



## Trees and New York City



WEEK **2** ACTIVITY **2<sub>A</sub>**

## Trees and New York City

### How do city trees help us breathe?

#### Location:

Outside (or inside in a gym).

#### Materials:

Five Hula Hoops®.

#### Summary:

Students play a game to help them think critically about oxygen and breathing.

#### Objective:

Discuss the importance of trees as a source for oxygen and/or relate breathing to trees.

#### Hook:

Start by breathing deeply in a slow and deliberate way. “Where does the air (or oxygen) that we breathe come from?” (Answer: Trees and plants.) Listen to students’ responses. Briefly discuss the fact that trees and plants produce oxygen during photosynthesis (see Vocabulary) and that there are many trees and plants in New York City.

Ask students if they would like to play a game about trees, oxygen, and breathing.

#### O-2 Trees, Round 1:

Have students place five Hula Hoop “trees” on the ground in a wide area. On “go,” students run through the area, stepping into the Hoops as they run so that they can be “safe” with enough oxygen; however, students cannot stand inside the Hoops—they must keep moving. On “time,” any student with one foot inside a Hoop is “safe;” the rest are “frozen” and stay frozen until the round is over. Rounds should be played for random lengths of time, e.g., the first round lasts 30 seconds, the second round 60, and the third round, 20. The object is to be the last person remaining with enough oxygen (this person would have his/her foot in a Hoop when time is called). Discuss the results: Was everyone safe with enough oxygen from five trees? Tell students that each person (in the world)

needs the oxygen produced daily by one tree to be able to live. If the Hoops really were trees, would there be enough oxygen for the class? (Note: We get oxygen from other plants, too.)

Ask students to remove some of the Hoops and then have them predict how the game will be affected. Play a few more rounds. Discuss: How did reducing the number of Hoops affect the game? How can students ensure that there are enough trees in New York City?

Do a quick check for understanding: Why are the trees in our city so important? Thank students and give them a challenge: Sit quietly tonight and try to count the number of breaths that you take in a minute. Ask a parent or sibling to help you. Think about it: Where does the oxygen that you breathe come from?

#### Extensions:

- **Respiratory rate.** Have students count the number of breaths that they take in one minute, their “resting” rate. Ask students to find a partner and give each student a sticky note. Have each student write his/her name on the note. Watch the clock and let students know when to begin and end counting. Have one partner breathe while the other partner counts how many times his/her chest rises; students should write down the number of breaths on their sticky note. Have partners switch roles. Note: Pre-school children average 20-30 breaths per minute; older children average 16-25 breaths per minute.

Create a bar graph on the board with the number of breaths in one minute (resting rate) on the x-axis (number 10-30 by twos) and the number of students on the y-axis. Ask students to come up to the board and place their sticky note in the correct location; help as needed.

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WEEK  
**2**

ACTIVITY  
**2<sub>B</sub>**

## Trees and New York City

### How do city trees help us breathe? (continued)

#### Extensions (continued):

Help students figure out the number of breaths that they take in one day: There are 60 minutes in an hour and 24 hours in a day, for a total of 1440 minutes. Multiply the average number of (student) breaths per minute times 1440. That's a lot of breaths! Start a discussion about the importance of trees for our health and well-being. Ask students to think of ways that they can help trees so that there will be enough oxygen to fill all of their respiratory needs.

#### Vocabulary:

**Photosynthesis.** The process in which trees and plants convert energy from the sun (sunlight) into sugars and food energy. Chlorophyll and other green pigments in leaves capture sunlight, and then with water and carbon dioxide, produce sugars; oxygen is a by-product and is released into the atmosphere.

#### Suggested Reading List:

Branley, Franklyn. 2006. *Air is all around you*. New illustrated edition. HarperTrophy. 0060594152.

Tomkins, Jasper. 1988. *The sky jumps into your shoes at night*. Children's Press. 0516094092.



WEEK **2** ACTIVITY **3<sub>A</sub>**

## Trees and New York City

### How do city trees clean the air?

(Adapted from the Franklin Institute, 2008)

**Location:** Outside.

**Materials:**

Mini-whiteboard, marker, one copy of the “Air Out There” sheet (included), timer or watch, tissues, access to a tree or trees.

**Summary:**

Students use their senses to search for sources of air pollution and examine a tree for evidence that it has helped clean the air.

**Objectives:**

Give examples of air pollutants or define “air pollution;” describe how trees clean the air.

**Hook:**

Wave your hand in front of your nose: “Have you ever been behind a stinky car or city bus? Have you ever seen the black smoke (exhaust) that comes out of its tailpipe? Yuck!”

Brainstorm a list of things that are found in the air that smell bad, taste bad, make it hard to breathe or see, or stick to skin and clothes (such as smog, car and bus exhaust, cigarette smoke, windblown dirt or dust, windblown trash, smells from garbage and sewage, factory smoke and smells, and soot from smokestacks, etc.) Quickly discuss the impacts of the things on the list: What could happen if we were to breathe in or swallow these things? What if these things got into the water that we drink (water supply)? What could happen to animals that breathe, eat, or drink these things? Tell students that things in the air that make it difficult or dangerous to breathe or that hurt the Earth cause (or are sources of) air pollution (see Vocabulary). Note: Depending on your class, you may need to discuss “pollution” first.

**Option 1:** Take a walk around your schoolyard to find sources of air pollution. Define boundaries and then have students search in 30-second increments; have students come back and report their findings; record their findings on the “Air Out There” sheet. Challenge

students to find air pollution that they can see, smell, and feel.

**Option 2:** If your school is on a city block on has a busy street nearby, have students stand on a sidewalk and count (for a minute or two) the number of cars, trucks, or buses that have visible exhaust or exhaust that smells bad. If you spend time waiting, discuss alternatives to vehicle traffic, such as walking and riding bicycles and the benefits of taking public transportation.

Tell students that trees in the city help clean the air by collecting (or trapping) air pollution on their leaves. Go up to a tree and look at it: Does the tree look dusty? Can they see any dirt (splashed up) on the trunk?

Place students into pairs; give each pair a tissue and have them gently wipe the top of a leaf or leaves: Is there any dirt, dust, or particles on the tissue? Note: If students wipe too hard and smash the leaves, they may get the leaves’ green pigment (chlorophyll) on their tissues. Have students share their findings.

Do a quick check for understanding: What is air pollution? How do trees in the city help us (with air pollution)? Thank students and give them a challenge: Show what you know. After school, show a parent, sibling, or neighbor how to check for air pollution on tree leaves with a tissue. Tell them how trees help clean the air in our city.

**Variations:**

1. Place students into three teams and give a specific role to each team: Find air pollution that they can see, smell, or feel.

2. Print copies of the “Air Out There” sheet for each pair of students and use the sheet as a scavenger hunt or Tic-Tac-Toe game.

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WEEK **2** ACTIVITY **3<sub>B</sub>**

## Trees and New York City

### How do city trees clean the air? (continued)

#### Extensions:

- **Particle collectors.** (Adapted from the Franklin Institute, 2008) To get a more accurate measure of the amount of pollution in the air, construct particle collectors: Cut two frames (of the same size) out of cardboard. Tape plastic wrap to one frame; lay the other frame on top and tape the frames together. Then spread a thin layer of petroleum jelly on the plastic wrap “window” (the petroleum jelly should be thin enough so that it cannot be easily seen). Hang the collectors in your schoolyard, near a busy street, or in your classroom; observe the amount and types of pollution found. Hang the collectors in all three places, predict where the most pollution will be collected and compare. Help students design related experiments. See the Franklin Institute’s “Stuff in the Air,” <http://sln.fi.edu/city/seed1.html>.
- **Rain!** (Adapted from the Franklin Institute, 2008) “Gauge” the amount of pollution in the air by collecting rain water in shallow containers such as pie pans (you may need to weigh them down with clean rocks). Allow the water to evaporate and see how many particles are left behind. Use a hand lens: Can you guess what the particles are or where they came from? How does air pollution affect drinking water and water systems?
- **O-2 Trees with air pollution.** Ask students if they would like to play a game about trees, oxygen (or air) to breathe, and air pollution. (See “O-2 Trees” from Week 2, Activity 2, “How do city trees help us breathe?”)

*Round 1:* Have students place five Hula Hoops® “trees” on the ground in a wide area. On “go,” students run through the area, stepping into the Hoops as they run so that they can be “safe” with enough oxygen; however, students cannot stand inside the Hoops—they must keep moving. On “time,” any student with one foot inside a Hoop is “safe;” the rest are “frozen” and stay frozen until the

round is over. Rounds should be played for random lengths of time, e.g., the first round lasts 30 seconds, the second round 60, and the third round, 20. The object is to be the last person remaining with enough oxygen (this person would have his/her foot in a Hoop when “time” is called). Discuss the results: Was everyone safe with enough oxygen from five trees? Tell students that each person (in the world) needs the oxygen produced daily by one tree to be able to survive. If the Hoops really were trees, would there be enough oxygen for the class? (Note: We get oxygen from other plants, too.) Ask students to remove some of the Hoops and then have them predict how the game will be affected. Play a few more rounds. Discuss: How did reducing the number of Hoops affect the game?

Ask students if they have ever seen, tasted, or felt air pollution, such as car or bus exhaust, windblown dust, etc. Play a few rounds as before, except the teacher acts as air pollution or “bad air” and tries to tag students; tagged students must hop on one foot until they can step into a Hoop, after which they can run again until time is called. Again, any student with one foot inside a Hoop is “safe” with enough oxygen; the rest are “frozen.”

*Discuss:* How did the “bad air” affect the game? (Answer: Students had to hop so that it took much more work and heavier breathing to “make it.”) In real life, how does air pollution affect your breathing? How does it make you feel? What can we do to ensure that there are enough trees in New York City (to help with air pollution and breathing)?

>>>>

WEEK  
**2**

ACTIVITY  
**3<sub>C</sub>**

## Trees and New York City

### How do city trees clean the air? (continued)

#### Vocabulary:

**Air pollution.** The things in the air that make the air difficult or dangerous to breathe (for humans and animals) or that hurt the Earth (plants, water, soils, ecosystems, etc.); “dirty air.” Air pollution is usually caused by human activities. When it rains, air pollution washes into public drinking water, streams, ponds, lakes, the ocean, etc., and becomes water pollution; air pollution can also cause smog.

#### Suggested Reading List:

Branley, Franklyn. 2006. *Air is all around you*. New illustrated edition. HarperTrophy. 0060594152.

Tomkins, Jasper. 1988. *The sky jumps into your shoes at night*. Children’s Press. 0516094092.

#### Teacher Resources:

The Franklin Institute. 2008. “Scientists in the city: Stuff in the air.” <http://sln.fi.edu/city/seed1.html>







#### References:

The Franklin Institute. 2008. “Scientists in the city: Stuff in the air.” <http://sln.fi.edu/city/seed1.html>



## Trees and New York City

### Air Out There

<p>Air pollution that you can see</p>	 <p>Factory smoke</p>	 <p>Car fumes</p>	<p>Other:</p>
<p>Air pollution that you can smell</p>	 <p>Traffic fumes</p>	 <p>Garbage</p>	<p>Other:</p>
<p>Air pollution that you can feel</p>	 <p>Dirt in the wind</p>	 <p>Smog</p>	<p>Other:</p>

WEEK **2** ACTIVITY **4<sub>A</sub>**

## Trees and New York City

### How do city trees help us stay cool?

#### Location:

Inside, then outside. You will need a sunny day and some shade from a tree or trees.

#### Materials:

Temperature chart (included), clipboards, pencils, thermometers (one for each pair of students), access to a tree or trees.

#### Summary:

Students use their senses to describe the temperature in the sun and shade and then measure the temperature with a thermometer.

#### Objectives:

Describe sensory differences between sun and shade areas; discuss the fact that trees are important because they help people stay cool on hot or sunny days.

Have students sit in a circle.

#### Hook:

Start fanning yourself with a piece of paper. “When it’s hot in the summer, what do you do to cool off?” Listen to students’ responses. “Has anyone ever gone outside and sat or played or taken a nap under a tree? Raise your hand if you have ever eaten food under a tree or gone on a picnic.” Discuss the fact that trees in New York City help people stay cool by providing shade; they also cool buildings and keep air conditioning costs down.

Place students in pairs and give each pair the *Made in the Shade* chart, a clipboard, a pencil, and a thermometer. Practice measuring the air temperature in the classroom; depending on your students’ experiences, go over how to read the thermometer to measure temperature and a few guidelines about use. Ask students to use their senses and record their findings: Does the temperature feel hot, warm, just right, cool, or cold?

Ask students if they would like to help you measure the air temperature in the sun and in

the shade. Is it really cooler in the shade?

Ask students to find a sunny spot in the schoolyard so that they can feel the warm sun on their faces and bodies. First, have students use their senses and record: Does the temperature feel hot, warm, just right, cool, or cold? Then have students measure and record the temperature. Note: To take a more accurate measurement, the thermometer needs to be in the location for at least a minute. Ask students to count to 60 before reading their thermometers or let students know when to take their measurements.

Ask students to find a shady spot under a tree or trees. Repeat the above measurements, first using the senses and then using thermometers.

Discuss and do a quick check for understanding: Was it cooler in the shade? How could you tell? How do trees in our city help us when it’s hot and sunny? Thank students and give them a challenge: Do you have a favorite shade tree that you like to rest under, play under, eat under, wait under, etc.? Think of a story that you could share about a shade tree—either your story or your parent’s or grandparent’s story.

#### Variations:

1. For younger students, skip the temperature chart and use a single thermometer to measure the air temperature in the three locations. Emphasize the use of senses to differentiate sun and shade: What do sun and shade look like? How do they feel? Do the sun and shade have a particular smell? Record students’ findings on a mini-whiteboard that you can carry outside.
2. For older students, ask them to guess and record the temperature in the three locations before taking the actual measurements.
3. Have students find the highest and lowest temperatures in the schoolyard, first by using their senses and then by measuring.

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WEEK **2** ACTIVITY **4<sub>B</sub>**

## Trees and New York City

### How do city trees help us stay cool? (continued)

#### Extensions:

- **Picnic.** Have students plan a picnic lunch or afternoon snack and enjoy it under the shade of a tree. Involve parent volunteers; read poetry or children's books. Take time just to enjoy the experience!
- **Patterns.** If you have access to more than one tree, ask students to notice the patterns of shade that are made by the trees' overall shapes, branches, and leaves. Some trees produce dense shade, like willow oaks and Norway maples; some trees produce "dappled" or filtered shade, like honey locusts and pine trees. Look at the trees' patterns of shade: Are the crowns (tops) of the trees tight or open and loose? Are there lots of smaller branches (dense) or are there fewer large branches that spread (open)? Do the branches hang down or are they horizontal or upright? What are the shapes of the leaves (fan-shaped like a ginkgo, heart-shaped like a linden, or long and linear like a pin oak, etc.)? How do the shapes affect the shade? Take a piece of chart paper and trace a stick (picked up from the ground) with leaves attached; color in the leaves: How much white space is on the paper between the leaves? (On the tree, this would be space where light would shine through.) What shade of green are the trees' leaves? How does color affect the amount of light that reaches the ground?

#### Vocabulary:

None.

#### Suggested Reading List:

Hosta, Dar. 2007. *If I were a tree*. Brown Dog Books. 0972196730.

Lauber, Patricia. 1994. *Be a friend to trees*. HarperTrophy. 0064451208.

Udry, Janice M. 1987. *A tree is nice*. HarperTrophy. 0064431479.

Van Laan, Nancy. 2000. *A tree for me*. Knopf Books for Young Readers. 0679993843.

Yolen, Jane. 2003. *Color me a rhyme: Nature poems for young people*. Boyd's Mill Press. 1590781724.






## Trees and New York City

### Made in the Shade

#### Made in the Shade



	How does it feel? (Circle one)	Temperature
<b>Classroom</b> 	<b>Hot</b> <b>Warm</b> <b>Just right</b> <b>Cool</b> <b>Cold</b>	
<b>Sun</b> 	<b>Hot</b> <b>Warm</b> <b>Just right</b> <b>Cool</b> <b>Cold</b>	
<b>Shade</b> 	<b>Hot</b> <b>Warm</b> <b>Just right</b> <b>Cool</b> <b>Cold</b>	

How do trees in the city help us when it's hot? \_\_\_\_\_

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WEEK **2** ACTIVITY **5<sub>A</sub>**

## Trees and New York City

### How do city trees help animals?

**Location:**  
Inside.

**Materials:**  
Whiteboard; marker;  
picture of a squirrel  
(included); timer,  
stopwatch, or clock;  
*City Animal Charades*  
cards (included).

**Summary:**

Students play charades to connect with animals that use trees in the city for food, homes, and safety.

**Objectives:**

List three city animals that use trees for food, homes, or safety; describe the importance of trees in the city for animals.

**City Animal Charades:**

One student draws a card and takes a turn pantomiming the city animal pictured while the rest of the students try to guess the identity. (Depending on your class, students can play as one group or they can be in teams.) The first student who guesses the identity within 60 seconds gets to go next. If no one guesses correctly within 60 seconds, a new animal card is drawn from the stack and a different student has a turn. Students may use sounds for starred cards, otherwise they must be silent. Students do not have to act like the animal using a tree for a home, food, or safety. Note: There are 18 cards; other (wild) animals that use city trees for a home, food, and/or safety but might be hard to pantomime: deer, foxes, coyotes, opossums, chipmunks, and wasps.

Do a quick check for understanding: Did students enjoy playing charades? What were some of their favorite animals to pantomime? How do city trees help animals? Thank students and give them a challenge: On your way home today and then back to school tomorrow, look at city trees: Try to find three animals; get a “bonus” for finding three different animals.

Before class, print and cut out the *City Animal Charades* cards and put them in a stack; get a 60-second timer or hourglass from a board game, a stopwatch, or have a watch or clock available.

**Hook:**

On the board, number 1-5. “I am getting ready to make a list of animals that I have seen living in our city. Here’s a picture of one. (Show students the picture of the squirrel.) Who can help me name a few more city animals?”

Tell students that many city animals live in trees: their homes are in trees, they get their food from trees, and they hide (or find safety) in trees; trees are part of their habitat (see Vocabulary). Ask students to “become” squirrels: Where do you sleep and raise your family / where is your home? (Students should act like squirrels in their nests.) What do you eat? (Students should act like squirrels eating acorns or nuts.) Where do you hide? (Students should act like squirrels using trees for safety.) Note: A squirrel’s nest is called a drey.

Have students act out other animals from the list or ask students to “become” robins sitting on eggs in their nests (tree home) and robins hiding in trees (tree safety). Ask students if they would like to play *City Animal Charades*. Tell students that all of the animals in the game use trees for homes, food, and/or safety (as part of their habitat).

**Extensions:**

- **World animal charades.** Ask students to list animals from around the world that have their homes in trees, eat food produced by trees, or use trees as safe places to hide and eat (such as monkeys, gorillas, tigers, lions, giraffes, zebras, elephants, etc.). Then have students take turns selecting an animal from the list and pantomiming that animal.
- **Trees as habitats.** Create a bulletin board display of a tree, showing the roots, a trunk, branches, leaves, and fruit or nuts. Have students cut out pictures of animals that use trees for homes, food, and/or safety and add them to the tree. If you would like, add flaps to each part of the tree that can be lifted to reveal the animals underneath.

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WEEK **2** ACTIVITY **5<sub>B</sub>**

## Trees and New York City

### How do city trees help animals? (continued)

#### Extensions (continued):

- **Animal safari.** (Adapted from Kriesberg, 1999) See what animals live in the trees in your schoolyard (or in a natural area near your school). First, go on a sensory adventure: Gather students near a tree or trees and ask them to be silent for 30 seconds: Do they see or hear any animals? If not, do they see any evidence of animals, such as a chewed pinecone, a feather, or a nest? Then place students in groups of four or five. Assign groups to different areas on or around a tree or trees. Ask students to look for animals and to see where they go and if the tree(s) provides any homes, food, or safety (habitat requirements).

Optional: 1.) Use magnifying lenses. 2.) Draw the animals or animal evidence or start a running list of animals seen. 3.) Have students look through coat hangers or paper towel tubes to focus their attention and change their perspective. 4.) If you have access to only one tree, have student groups place Hula Hoops® on the grass, on the sidewalk, or on the side of the school building. 5.) Use animal identification guides.

- **Speak-up for animals!** Choose a wild animal that lives in the city and conduct research: What does it do for food, water, a home, and safety or shelter? If the animal could speak about life in the city, what would it say? Draw or cut out pictures of your animal; then add cartoon bubbles. Combine pictures of different animals and create a classroom comic book.
- **NYC: For the birds!** Get some bird identification guides and start watching the birds near your school, or borrow song bird recordings from your local library and learn to recognize them by sound. Hang bird feeders near a classroom window. Watch the feeders at regular times each day and record the number and types of birds seen; place a classroom bird-watching journal in a

central location. Conduct experiments: Put different types of seeds in each feeder and record the birds' preferences for seed types; watch for birds that eat seeds off the ground. Want to collect data for scientists? Join *Project Feeder Watch* and send your bird-watching information via the Internet (<http://www.birds.cornell.edu/pfw/>).

- **Sing about it!** Sing "I Just Want to Thank the Trees" to the tune of "The Farmer in the Dell"

Trees are really great  
Oh trees are really great  
I just want to thank the trees  
Trees are really great.

They give the squirrels some nuts  
They give the squirrels some nuts  
I just want to thank the trees  
They give the squirrels some nuts.

They give raccoons a home...  
They help hide the birds....

#### Vocabulary:

**Habitat.** A place where animals (and plants) live and have their needs met.

#### Suggested Reading List:

Bash, Barbara. 1992. *Urban roosts: Where birds nest in the city*. Little, Brown Young Readers. 0316083127.

Brenner, Barbara. 2004. *One small place in a tree*. HarperCollins. 0688171818.

Twit, Susan J. 1997. *City foxes*. Alaska Northwest Books. 0882404938.

Winter, Jeanette. 2007. *The tale of Pale Male: A true story*. Harcourt Children's Books. 0152059725.

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WEEK  
**2**

ACTIVITY  
**5<sub>C</sub>**

## Trees and New York City

### How do city trees help animals? (continued)

#### Teacher Resources:

Project Feeder Watch. 2007.  
<http://www.birds.cornell.edu/pfw/>

#### Identification guides:

Boring, Mel. 1998. *Birds, nests, and eggs*. (Take-along guides.) NorthWord Books for Young Readers. 155971624X.

Boring, Mel. 1998. *Caterpillars, bugs, and butterflies*. (Take-along guides.) Gareth Stevens Publications. 0836820401.

Burns, Diane. 1995. *Trees, leaves, and bark*. (Take-along guides.) NorthWord Books for Young Readers. 1559716282.

#### Urban animal guides:

Bogue, Gary L. 2003. *The raccoon next door*. Heyday Books. 1890771716.

Hadidian, John (editor). 2007. *Wild neighbors: The humane approach to living with wildlife*. 2nd edition. Humane Society Press. 0974840084.

#### References:

Kriesberg, Daniel. 1999. *A sense of place: Teaching children about the environment with picture books*. Teacher Ideas Press. 1563085658.





## Trees and New York City





## Trees and New York City

### City Animal Charades



Caterpillar



Owl



Pigeons



Hawk



Fly



Crow



Bee



Tree Frog



Grasshopper

## Trees and New York City

### City Animal Charades



Skunk



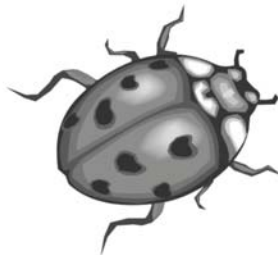
Bat



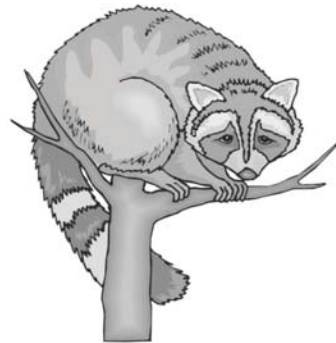
Ant



Mosquito



Ladybug



Raccoon



Butterfly



Slug (or snail)



Spider

WEEK **3** ACTIVITY **1<sub>A</sub>**

## Trees and New York City Neighborhoods

### Where are trees found in my neighborhood?

(Adapted from Kriesberg, 1999)

**Location:**

Inside.

**Materials:**

Whiteboard, marker.

**Optional:**

(Green) sticky notes; paper; markers, crayons, or colored pencils.

**Summary:**

Students think about the importance of trees and green spaces in their neighborhood and draw a picture of their favorite tree.

**Objectives:**

List neighborhood locations where trees or green spaces are found; describe a favorite place

where trees are found, a favorite tree, or a favorite activity involving trees or green spaces.

Have students sit in a circle.

**Hook:**

Start thinking out loud about neighborhood locations: "Let's see... there's the park, our school, the library... I'm trying to think of places in the neighborhood. Who can help me?" List as many specific neighborhood locations as possible on the board; include the names of streets where students' homes are, fire stations, malls, stores, community gardens, etc.

Then consider each one: Are trees growing there or are there green spaces (see Vocabulary)? Optional: Give students (green) sticky notes and have them come up and place the notes next to locations where they think trees or green spaces are found.

Ask students if they think that trees and green spaces are important to their neighborhood and why. Are they important to students? Help students list the benefits of having trees and green spaces in the neighborhood, such as giving students beauty to enjoy, places to play, places to explore, and places to relax (see Teacher Resources).

Do students have a favorite tree or green space in their neighborhood or in the neighborhood of a relative? Give each student a piece of paper and some markers, crayons, or colored pencils. Ask students to draw their favorite place where trees grow, their favorite tree, or their favorite activity involving trees or green spaces. Have students share their drawings as time allows.

Do a quick check for understanding: Are there trees and green spaces in your neighborhood? Are they important (to you)? Why? Thank students and give them a challenge: On your way home today, try to find as many places as possible with trees or green spaces. How many can you find? Try to find at least five.

**Extensions:**

- **In the neighborhood.** Have students make leaf rubbings of trees near their homes, then create a map display of the neighborhood and add the leaf rubbings to the map. Make the map "come alive" by attaching photographs of the trees or of neighbors, buildings, etc. Ask your community center if they would like to display the map after it has been at your school.
- **Schoolyard primer.** (Adapted from Kriesberg, 1999) Where are trees and green spaces found around your school? Take students for a walk and try to find things that begin with each letter of the alphabet; focus on trees, the benefits of trees, and natural artifacts. Then take your ABC list and turn it into a book! Learn from published authors by surveying and comparing ABC books from your library.
- **Garden!** Do you and your family have a garden or does your neighborhood have a community garden? What benefits do you get from a garden? (For example, places to play, explore, relax, enjoy beauty, be with family and friends, etc.) What are your favorite

>>>

WEEK  
**3**

ACTIVITY  
**1<sub>B</sub>**

## Trees and New York City Neighborhoods

### Where are trees found in my neighborhood? (continued)

#### Extensions (continued):

fruits and vegetables to eat? What's your favorite time of day to be in the garden? Make a collage of your garden out of pictures from magazines; photographs of the garden; colorful scraps of material, string, and yarn; and pressed leaves and flowers, etc. Read children's books about community gardens, such as Dyanne Disalvo-Ryan's *City Green* and Barbara Pollak's *Our Community Garden*.

- **Neighborhood top 10.** (From Kriesberg, 1999)  
Ask students to make a list of the top-10 reasons to live in their neighborhood or the top-10 features of the place.

#### Vocabulary:

**Green space.** Any area that is green with plants (trees, grass, flowers, etc.).

#### Suggested Reading List:

Bunting, Eve. 1996. *Secret place*. Clarion Books. 0395643678.

Bunting, Eve. 2000. *Flower garden*. Voyager Books. 0152023720.

Disalvo-Ryan, Dyanne. 1994. *City green*. HarperCollins. 068812786X.

Fife, Dale H. 1996. *The empty lot*. Sierra Club Books for Children. 0871568594.

Lee, Huy Youn. 1998. *In the park*. 1st edition. Henry Holt and Company. 0805041281.

Morrison, Gordon. 2008. *Nature in the neighborhood*. Houghton Mifflin/Walter Lorraine Books. 0547015488.

Pollak, Barbara. 2004. *Our community garden*. Beyond Words. 1582701091.

#### Teacher Resources:

Disalvo-Ryan, Dyanne. 1994. *City green*. HarperCollins. 068812786X.

Pollak, Barbara. 2004. *Our community garden*. Beyond Words. 1582701091.

Some benefits of neighborhood trees: Trees give us places to...

1. **Play:** increases imagination and creativity; **exercise:** activity is fun and reduces stress; **be with our families and friends:** increases feelings of belonging.
2. **Explore:** increases feelings of awe, wonder, freedom, and self-empowerment; fosters independence.
3. **Relax:** increases feelings of "balance;" **connect with the world:** increases feelings of wisdom, guidance, and empathy; **connect with oneself; contemplate.**
4. **Enjoy the aesthetics, beauty:** increases feelings of inner peace and happiness.

#### References:

Kriesberg, Daniel. 1999. *A sense of place: Teaching children about the environment with picture books*. Teacher Ideas Press. 1563085658.

WEEK  
**3**

ACTIVITY  
**2<sub>A</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me play?

#### Location:

Outside.

#### Materials:

One printed copy of the “Tree, May I?” directions (included).

#### Summary:

Students move forward and backward during a schoolyard game of “Tree, May I?” and think critically about the benefits of trees in the neighborhood as places to play.

#### Objective:

Discuss the importance of trees or green spaces in their neighborhood as places to play.

#### Hook:

“Today, I thought we’d go outside and play a game. Who’s interested?” Take students outside and get ready to play “Tree, May I?”

#### Game:

Ask students to line up a distance away from you (the tree) and then face you (this is the starting line). Then give directions like those below or modify to fit the personalities of your class. Individual students should reply, “Tree, May I?”, before moving forward or they must go back to the starting line. Encourage students to invent their own motions and sounds for the directions given; however, motions must be reasonable or the student(s) will have to go back to the starting line.

Examples of directions:

1. Take 2 giant redwood jumps forward.
2. Take 1 “tree-mendous” tree step forward.
3. Take 2 shady-tree slides forward.
4. Take 1 broken-branch step backward.
5. Take 3 apple jumping jacks forward.
6. Take 3 leaf twirls forward.
7. Take 4 squirrel steps forward.
8. Take 5 acorn baby steps forward.
9. Take 2 bumpy-bark bends forward.
10. Take 1 rotten-root step backward.
11. Take 3 tiny seed tiptoes forward.
12. Take 2 bendy-branch steps forward.

13. Take 3 breezy leaf hops forward.
14. Take 1 sunny-day step forward.
15. Take 2 tall-tree-trunk steps forward.

Play for a given amount of time or until the first student reaches you. Discuss and do a quick check for understanding: What was fun about the “Tree, May I?” game? (Being outside, connecting with nature and trees...) How do students feel? (Happy, more awake, refreshed...) Start a conversation about the fact that neighborhood (and schoolyard) trees and green spaces (see Vocabulary) can give us places to play. Ask students to think of their favorite place to play outside. What do they do there? Do they like to be there alone or with friends?

Thank students and give them a challenge: Think of three words to describe how you feel when you’re in your favorite place (to play outside).

#### Extensions:

- **Secret places:** (Adapted from Kriesberg, 1999)  
Children often have a secret or special play place somewhere outside. A secret place can be almost anything, from an actual hideout or fort to a favorite tree, a clump of bushes, or the space under a porch. Secret places are important because they provide independence and foster creativity and imagination. Ask students to draw a map to their secret place without revealing the exact location. Use pictures from magazines, natural objects from the place, photographs of the place, drawings, or anything that represents their special place. If students do not have a special place, ask them to create one that they would like to have.
- **Tree house!** Read children’s books like *Andrew Henry’s Meadow* (by Doris Burn) or *Miss Twiggley’s Tree* (by Dorothea Fox) (see Suggested Reading List) and then create your own model tree houses. Use clay, recycled materials, and natural artifacts; allow time for students to present their works of art. >>>



WEEK  
**3**

ACTIVITY  
**2<sub>B</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me play? (continued)

#### Vocabulary:

**Green space.** Any area that is green with plants (trees, grass, flowers, etc.).

#### Suggested Reading List:

Bunting, Eve. 1996. *Secret place*. Clarion Books. 0395643678.

Burn, Doris. 2005. *Andrew Henry's meadow*. 2nd edition. San Juan Publishing. 0970739923.

Fox, Dorothea W. 2002. *Miss Twiggley's tree*. Purple House Press. 1930900171.

Lee, Huy Youn. 1998. *In the park*. 1st edition. Henry Holt and Company. 0805041281.

Wishinsky, Frieda. 1999. *The man who made parks: The story of parkbuilder Frederick Law Olmsted*. Tundra Books. 0887764355.

#### Teacher Resources:

Burn, Doris. 2005. *Andrew Henry's meadow*. 2nd edition. San Juan Publishing. 0970739923.

Fox, Dorothea W. 2002. *Miss Twiggley's tree*. Purple House Press. 1930900171.

Some benefits of neighborhood trees: Trees give us places to...

1. **Play:** increases imagination and creativity; **exercise:** activity is fun and reduces stress; **be with our families and friends:** increases feelings of belonging.
2. **Explore:** increases feelings of awe, wonder, freedom, and self-empowerment; fosters independence.
3. **Relax:** increases feelings of "balance;" **connect with the world:** increases feelings of wisdom, guidance, and empathy; **connect with oneself; contemplate.**
4. **Enjoy the aesthetics, beauty:** increases feelings of inner peace and happiness.

#### References:

Kriesberg, Daniel. 1999. *A sense of place: Teaching children about the environment with picture books*. Teacher Ideas Press. 1563085658.





WEEK  
**3**

ACTIVITY  
**3<sub>A</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me explore?

(Adapted from Kriesberg, 1999)

#### Location:

Outside.

#### Materials:

“Schoolyard Scavenger Hunt” sheet (included, one per student), clipboards, pencils.

#### Summary:

Students search for natural artifacts in their schoolyard and think critically about the benefits of trees in their neighborhood as places to explore.

#### Objective:

Discuss the importance of trees or green spaces

in their neighborhood as places to explore.

#### Hook:

“Today I would like to go exploring. Who would like to go with me on a scavenger hunt in the schoolyard?”

Ask students to form partners and then give each pair a copy of the scavenger hunt list, a pencil, and a clipboard. (Use the included list or make your own, depending on the area around your school. If you don’t have any trees, then consider natural objects: a feather, a white rock, a mushroom, an animal sighting, something green, natural objects to make music, etc. If you like, add point values for difficult-to-find items.) The object is to find all the items on the list, but to leave items in their locations, undisturbed and unharmed.

After a given amount of time or when a student pair has found all the items on the list, gather students. Discuss and do a quick check for understanding: What was fun about the scavenger hunt? (Being outside, the freedom to explore, connecting with nature and trees...) How do students feel? (Happy, more awake, refreshed...) Start a conversation about the fact that neighborhood (and schoolyard) trees and green spaces (see Vocabulary) can give us places to explore. Ask students to think of their favorite place to explore outside. What do they do there? Do they like to be there alone or with friends?

Thank students and give them a challenge: Think of three words to describe how you feel when you’re in your favorite place (to explore outside).

#### Extensions:

- **Explore your schoolyard!** (Adapted from Kriesberg, 1999) Consider the following activities to help students explore and connect to their schoolyard:

**Hula Hoop® Looking.** Form groups of four or five students each and then give each group a Hula Hoop. Have groups place their Hoops near trees or other plants, on the grass, or along a sidewalk. Allow students to take some time to look for animals, plants, fungi, rocks, or even colors within each Hoop. Start a running list of everything that was found. Repeat the activity at different times of the year and add to the running list. How did the place change?

**Framing Pictures.** Have students focus on natural areas using coat hangars or paper towel tubes as frames. Ask students to hold the frames against a tree, the ground, the sky, the school building, etc., and then to write, draw, or discuss what they see.

- **Vacant or not?** Vacant lots can be great places to explore; old building materials, cracked concrete, and even old tires provide habitats for many plants and animals. Arrange a field trip to a vacant lot near your school. First, stop and make sure that the lot is relatively safe, without dangerous materials (asbestos, etc.) or unknown substances. When students are there, set clear boundaries for looking and non-negotiable rules for behavior. Use activities like “Hula Hoop Looking” or “Framing Pictures.” Discuss all the discoveries that students made and how they felt while exploring.

>>>

WEEK  
**3**

ACTIVITY  
**3<sub>B</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me explore? (continued)

#### Vocabulary:

**Green space.** Any area that is green with plants (trees, grass, flowers, etc.).

#### Suggested Reading List:

Arnosky, Jim. 1992. *Crinkleroot's guide to knowing the trees*. Simon & Schuster Children's Publishing. 0027058557.

Arnosky, Jim. 1993. *Crinkleroot's guide to walking in wild places*. Aladdin. 0689717539.

Fife, Dale H. 1996. *The empty lot*. Sierra Club Books for Children. 0871568594.

Horsfall, Jacqueline. 1997. *Play lightly on the Earth: Nature activities for children ages 3-9*. 1st edition. Dawn Publications. 1883220688.

Morrison, Gordon. 2008. *Nature in the neighborhood*. Houghton Mifflin/Walter Lorraine Books. 0547015488.

O'Brien-Palmer, Michelle. 1998. *Sense-Abilities: Fun ways to explore the senses*. Chicago Review Press. 1556523270.

Wood, Douglas. 2006. *Nothing to do*. Dutton Juvenile. 0525476563.

#### Teacher Resources:

Some benefits of neighborhood trees: Trees give us places to...

1. **Play:** increases imagination and creativity; **exercise:** activity is fun and reduces stress; **be with our families and friends:** increases feelings of belonging.

2. **Explore:** increases feelings of awe, wonder, freedom, and self-empowerment; fosters independence.

3. **Relax:** increases feelings of "balance;" **connect with the world:** increases feelings of wisdom, guidance, and empathy; **connect with oneself; contemplate.**

4. **Enjoy the aesthetics, beauty:** increases feelings of inner peace and happiness.

#### References:

Kriesberg, Daniel. 1999. *A sense of place: Teaching children about the environment with picture books*. Teacher Ideas Press. 1563085658.



## Trees and New York City Neighborhoods

### Schoolyard Scavenger Hunt



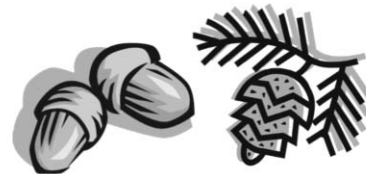
A special rock.



A stick that looks like the letter “Y.”



An acorn or a cone.



A piece of litter.



Two different leaf shapes.



A bird.



A flower.



WEEK  
**3**

ACTIVITY  
**4<sub>A</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me relax?

(Adapted from Kriesberg, 1999)

#### Location:

Outside.

#### Materials:

“Listen and Find Tic-Tac-Toe” sheets (included, one per student—there are three different sheets), clipboards, and pencils.

#### Summary:

Students play a silent listening game in their schoolyard and think critically about the benefits of trees in their neighborhood as places to relax.

#### Objective:

Discuss the importance of trees or green spaces in their neighborhood as places to relax.

#### Hook:

“Who would like to have a nice, relaxing class today?”

Go outside and give each student a clipboard with a sheet on it and a pencil; turn the clipboard over so that the sheet cannot be seen. Tell students that it is time to sit silently and listen. Encourage them to sit so quietly and be so still that the schoolyard goes on as if they weren’t there. Allow 30 seconds for everyone to get quiet and for everything to settle down. Sit quietly for one-two minutes. What did students hear? Then ask students to turn their clipboards over so that they can see the “Listen and Find Tic-Tac-Toe” *sheet*; remind students that they are to remain silent so that they can hear.

**Listen and Find Tic-Tac-Toe:** Students sit silently and listen, putting a check next to items that are heard. First object: To get three in a row, either horizontally, vertically, or diagonally. When students get three in a row, they should raise their hand and then lower it so that others can see that they have gotten “Tic-Tac-Toe.” Second object: Continue playing until all items are heard.

Play for a given amount of time or until every student has raised and lowered their hand. Ask a few students

(especially the first person to get “Tic-Tac-Toe”) to say the items found.

Discuss and do a quick check for understanding: Did students enjoy the quiet time and “Listen and Find Tic-Tac-Toe?” What was enjoyable about it? (Being outside, connecting with nature and trees...) How do students feel? (Happy, more awake, refreshed...) Start a conversation about the fact that neighborhood (and schoolyard) trees and green spaces (see Vocabulary) can give us places to relax and release stress. Ask students to think of their favorite place to relax outside, such as a park, a playground, a yard, etc. What do they do there? Do they like to be there alone or with friends?

Thank students and give them a challenge: Think of three words to describe how you feel when you’re in your favorite place (to relax outside).

#### Variations:

1. Instead of asking students to raise their hand when they get three in a row, before the game, have students pick up a natural object from the ground that won’t blow away, such as a stick or a rock. In the circle, have students place their object to the side. When students get three in a row, have them place their natural artifact in front of them towards the middle of the circle, so that others can see that they have gotten “Tic-Tac-Toe.” Students should continue playing, trying to find all the items on the sheet.
2. Instead of marking the items on the sheet with a pencil, have students place a small rock on each square.

>>>>

WEEK **3** ACTIVITY **4<sub>B</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me relax? (continued)

#### Extensions:

- **Listen and enjoy.** Spread some blankets and relax in the shade of a tree. Share some read-aloud poetry; ask students to select their favorite poems to read. Reflect on the importance of trees and green spaces for relaxation. (See Teacher Resources for a list of poetry books.)

#### Vocabulary:

**Green space.** Any area that is green with plants (trees, grass, flowers, etc.).

#### Suggested Reading List:

Anderson, M.T. 2005. *Me, all alone, at the end of the world*. 1st edition. Candlewick. 0763615862.

Baylor, Byrd. 1997. *The other way to listen*. Aladdin. 0689810539.

#### Teacher Resources:

Suggested poetry for reading aloud.

Levy, Constance. 1994. *A tree place: And other poems*. Margaret K. McElderry. 068950599X.

Nye, Naomi S. 1995. *The tree is older than you are: A bilingual gathering of poems and stories from Mexico*. Simon and Schuster Children's Publishing. 0689802978.

Singer, Marilyn. 2002. *Footprints on the roof: Poems about the Earth*. 1st edition. Knopf Books for Young Readers. 0375810943.

Yolen, Jane. 2003. *Color me a rhythm. Nature poems for young people*. Boyd's Mill Press. 1590781724.

Yolen, Jane. 2003. *Least things: Poems about small natures*. Boyd's Mill Press. 1590780981.

Some benefits of neighborhood trees: Trees give us places to...

1. **Play:** increases imagination and creativity; **exercise:** activity is fun and reduces stress; **be with our families and friends:** increases feelings of belonging.
2. **Explore:** increases feelings of awe, wonder, freedom, and self-empowerment; fosters independence.
3. **Relax:** increases feelings of "balance;" **connect with the world:** increases feelings of wisdom, guidance, and empathy; **connect with oneself; contemplate.**
4. **Enjoy the aesthetics, beauty:** increases feelings of inner peace and happiness.









#### References:

Kriesberg, Daniel. 1999. *A sense of place: Teaching children about the environment with picture books*. Teacher Ideas Press. 1563085658.



## Trees and New York City Neighborhoods

### Listen and Find Tic-Tac-Toe

 <p>Airplane</p>	 <p>Leaf blowing in the wind</p>	 <p>Insect buzzing</p>
 <p>Dog barking</p>	<p>Free Space</p>	 <p>Bird singing</p>
 <p>Big truck on the road</p>	 <p>Car on the road</p>	 <p>Kids playing</p>



## Trees and New York City Neighborhoods

### Listen and Find Tic-Tac-Toe



Bird singing



Kids playing



Insect buzzing



Squirrel

Free  
Space



Big truck on  
the road



Airplane



Car on the road



Leaf blowing in  
the wind

## Trees and New York City Neighborhoods

### Listen and Find Tic-Tac-Toe

 <p>Bird singing</p>	 <p>Car on the road</p>	 <p>Kids playing</p>
 <p>Flag blowing</p>	<p>Free Space</p>	 <p>Big truck on the road</p>
 <p>Adults talking</p>	 <p>Insect buzzing</p>	 <p>Leaf blowing in the wind</p>

WEEK  
**3**

ACTIVITY  
**5<sub>A</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me enjoy beauty?

(Adapted from Kriesberg, 1999)

#### Location:

Inside or out.

#### Materials:

Whiteboard; marker; natural objects from your schoolyard; paper, pencils, and clipboards or small whiteboards and markers enough for each pair of students.

#### Summary:

Students work with partners to observe and draw natural artifacts and think critically about the benefits of trees in their neighborhood as places to enjoy beauty.

#### Objective:

Discuss the importance of trees or green spaces in their neighborhood as

places to enjoy beauty or describe trees and green spaces as “beautiful.”

Before class, collect natural objects from your schoolyard, such as a leaf, a stick, a rock, a pinecone, a maple “helicopter,” a piece of bark, a feather, etc.

#### Hook:

Act like you are counting items on your fingers. “I was just thinking about some beautiful things, like music or a sunrise. Who would like to tell me something that they think is beautiful?” List students’ answers on the board. Depending on students’ answers, ask students if trees, flowers, and other things from nature can be considered “beautiful;” ask students if they have ever sat and enjoyed looking at a beautiful scene from nature or enjoyed listening to a bird’s song, etc.

“How do beautiful things make us feel?” List students’ answers on the board. Depending on students’ answers, tell students that people have different ideas of “beauty,” but that beautiful things usually make us happy and bring us joy.

Ask students to turn to a partner. Play “Partner Sketching:” Give one student a natural object from your schoolyard and ask him/her to keep it hidden; give the partner a piece of paper, a pencil, and a

clipboard. The student holding the object should describe everything he or she can about the object, using as much detail as possible; the partner should draw the object based on the description. How well did the drawing match the object? Have students switch roles and give them a different natural object.

Discuss and do a quick check for understanding: Did students enjoy “Partner Sketching”? What was enjoyable about it? (Looking closely at something, connecting with nature and trees...) How do students feel? (Happy, more awake, refreshed...) Start a conversation about the fact that neighborhood (and schoolyard) trees and green spaces (see Vocabulary) can add beauty and joy to our lives. Ask students to think of a beautiful tree or green space or a place that they go to enjoy beauty, such as a park, a playground, a yard, etc. What do they do there? Do they like to be there alone or with friends?

Thank students and give them a challenge: Think of three words to describe how you feel when you’re in your favorite place (to enjoy beauty or that is beautiful).

#### Variations:

1. Place the schoolyard objects or other natural objects (such as seashells) in a paper bag or box. Sit in a circle with your students with your legs towards the middle like the spokes on a wheel. Place a sheet over your legs. Ask students to put their hands under the sheet, and then pass the objects under the sheet. When each object is passed back to you, students may guess the identity. Switch directions after each object is passed.
2. Collect leaves, sticks, pinecones, seeds, etc., from your schoolyard and pass the objects under the sheet, as above. Then take your students outside and see if they can find matching objects.
3. Ask students to collect leaves, sticks, pinecones, seeds, etc., from your schoolyard and then use those objects to create works of art that symbolize >>>

WEEK  
**3**

ACTIVITY  
**5<sub>B</sub>**

## Trees and New York City Neighborhoods

### How do trees in my neighborhood help me enjoy beauty? (cont.)

the place. (Ask students not to collect living things or to be destructive.)

4. Ask students to collect leaves, sticks, pinecones, and seeds, etc., from their neighborhood and then use those objects as above.

#### Extensions:

- **Museum.** (Adapted from Kriesberg, 1999)  
Collect similar natural objects, as above, and start a collection; put them on display as in a museum. Ask students to write labels for the objects and to write why they like the object or why they think that it is beautiful.
- **Beautiful textures.** (Adapted from the Franklin Institute, 2008) Help students find beauty in the shapes and textures that can be found around your school by doing crayon rubbings. First, experiment with familiar objects like a penny, a basketball, or the sole of a shoe to help students realize that only the raised portions will be seen. Define boundaries and go over safety precautions and then go out and do crayon rubbings of building materials, sidewalks, benches, pavement, manhole or sewer covers, signs, etc. Allow time for students to share. Create a display in a school hallway with the crayon rubbings; hang a sign that asks, "How well do you know your schoolyard?" or "Beauty in your schoolyard."
- **Beauty top ten.** (Adapted from Kriesberg, 1999)  
Have each student write a list of the 10 most beautiful things in their neighborhood. The list could include the names of people, specific places, the names of pets, a favorite building, a favorite tree or natural area, etc. Ask a few students to share their lists. Are any of the things on more than one list? Ask younger students to create a book about the most beautiful things in their neighborhood; allow time for students to share their books.

#### Vocabulary:

**Green space.** Any area that is green with plants (trees, grass, flowers, etc.).

#### Suggested Reading List:

Bunting, Eve. 2000. *Flower garden*. Voyager Books. 0152023720.

Fife, Dale H. 1996. *The empty lot*. Sierra Club Books for Children. 0871568594.

Tresselt, Alvin R. 1992. *The gift of the tree*. Lothrop Lee and Shepard. 0688106854.

Yolen, Jane. 2003. *Color me a rhythm. Nature poems for young people*. Boyd's Mill Press. 1590781724.

#### Teacher Resources:

Some benefits of neighborhood trees: Trees give us places to...

1. **Play:** increases imagination and creativity; **exercise:** activity is fun and reduces stress; **be with our families and friends:** increases feelings of belonging.
2. **Explore:** increases feelings of awe, wonder, freedom, and self-empowerment; fosters independence.
3. **Relax:** increases feelings of "balance;" **connect with the world:** increases feelings of wisdom, guidance, and empathy; **connect with oneself; contemplate.**
4. **Enjoy the aesthetics, beauty:** increases feelings of inner peace and happiness.

#### References:

The Franklin Institute. 2008. "Scientists in the city: A sense of relief." <http://sln.fi.edu/city/seed2.html>

Kriesberg, Daniel. 1999. *A sense of place: Teaching children about the environment with picture books*. Teacher Ideas Press. 1563085658.

WEEK **4** ACTIVITY **1<sub>A</sub>**

## Trees and Me

### How do I help trees and the Earth?

**Location:**

Inside or out.

**Materials:**

Whiteboard, marker.

**Summary:**

Students act out ways that they help people and consider ways that they help trees and the Earth.

**Objective:**

List three ways that students help people,

describe one way that they help trees or the Earth (environment), and describe how “helping” makes them feel.

Have students sit in a circle.

**Hook:**

Thank students for something they have recently helped you with; tell them why it was helpful and how it made you feel. Add some drama—shake a few hands, etc. For example: “I want to thank you for getting right to work this morning; we had enough time to finish our projects. It makes me feel like I’m doing a good job when you listen.”

On the board, list other people that students help on a regular basis, such as family members, friends, neighbors, school staff (principals, other teachers, secretaries, cafeteria assistants, janitors...), etc. Then have student volunteers act out ways that they help the people on the list: First, have students name the person that they are going to help; then have students act out the helpful action. (For example: “I choose my Mom;” then the student acts out taking out the trash.) The rest of the class should try to guess what the helpful action is.

How does it feel to help others and to give? Listen to students’ responses and add to their responses as necessary.

Ask students if they help trees and the Earth and list these ways on the board; prompt students, if necessary, to consider everyday actions such as recycling, walking to school or taking public

transportation, and turning the water off when they’re brushing their teeth.

How does it feel to help trees and the Earth and to give? Listen to students’ responses and add to their responses as necessary.

Do a quick check for understanding: Did students enjoy acting out ways to be helpful? How does it feel to help or to give? Thank students and give them a challenge: Think about whether it is always easy to help others? Is it always easy to help trees and the Earth? Why or why not?

**Extensions:**

- **Trees give.** Create a display of all the ways that trees “give to” or “help” people. Add pictures cut from magazines, drawings, and photographs taken by students. Ask students to write thank you cards to trees and attach them to the display.
- **Earth heroes.** Spend some time thinking about heroes. Help students make a list of specific heroes or types of heroes, such as family members, teachers, doctors, firefighters, policemen and policewomen, political figures, peace activists, etc. Discuss the characteristics of qualities of heroes (or of these people) and have students act out heroes or hero characteristics.

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WEEK 4	ACTIVITY 1 <sub>B</sub>	Trees and Me
		How do I help trees and the Earth? (continued)
		<p><b>Vocabulary:</b> None.</p> <p><b>Suggested Reading List:</b>  Locker, Thomas. 2002. <i>Walking with Henry: Based on the life and works of Henry David Thoreau</i>. Fulcrum Publishing. 1555913555.</p> <p>Locker, Thomas. 2003. <i>John Muir: America's naturalist</i>. Fulcrum Publishing. 1555913938.</p> <p>Locker, Thomas and Bruchac, Joseph. 2004. <i>Rachel Carson: Preserving a sense of wonder</i>. Fulcrum Publishing. 1555914829.</p> <p>Sabin, Ellen. 2004. <i>The giving book: Open the door to a lifetime of giving</i>. Watering Can. 0975986805.</p> <p>Sabin, Ellen. 2005. <i>The hero book: Learning lessons from the people you admire</i>. 1st edition. Watering Can. 0975986813.</p> <p>Silverstein, Shel. 2005. <i>The giving tree</i>. HarperCollins. 0060840986.</p> <p>Tresselt, Alvin R. 1992. <i>The gift of the tree</i>. Lothrop Lee and Shepard. 0688106854.</p>
		



WEEK  
4

ACTIVITY  
2<sub>A</sub>

## Trees and Me

### How can I help trees and the Earth?

#### Location:

Inside or out.

#### Materials:

Whiteboard, marker, one copy of the *Making a Difference* story (included).

**Optional:** A world atlas or globe.

#### Summary:

Students listen to a story about the work of a young environmental steward and think of ways that they can help trees and the Earth.

#### Objective:

List ways that students can help trees and the Earth.

#### Hook:

Tell students that you are

excited about sharing a story with them. Have them gather around and ask them to use their best listening and discussing/sharing skills.

Ask students how they help trees and the Earth, such as by recycling, walking to school or taking public transportation, and turning the water off when they're brushing their teeth; write these on the board.

Tell students that the story is about a girl living in a tropical rainforest in Costa Rica who decided to help trees and the Earth. Optional: Have students find Costa Rica in an atlas or on a globe. Ask students to listen for the specific ways that the girls helped.

Read the story and then write the specific ways that Janine helped on the board. Discuss Janine's actions: Are students surprised by the actions or the effects of the actions? Are students surprised by Janine's age? Ask student volunteers to act out the helping actions from the story.

Ask students if they were inspired by the story and/or if they would like to do more to help trees and the Earth; add to the original list of helpful actions.

Do a quick check for understanding: Did students enjoy listening to the story? How does it feel to help or to give? Thank students and give them a challenge:

Think about the actions that Janine took. Were they easy? Why or why not?

#### Making a Difference: Janine Licare and Kids Saving the Rainforest

Janine Licare was nine years old and wondered how she could make some spending money, so she and a friend set up a roadside stand to sell their artwork—painted rocks. After a few days, they decided that their profits should go towards “something much more important.” They asked a local hotel if they could start selling artwork in a corner of their restaurant, and so they opened the *Kids Saving the Rainforest* store. Later, Janine and her friend started the official organization, *Kids Saving The Rainforest*, with the goals of saving the forest and animals in their home country of Costa Rica.

Since 1999, *Kids Saving The Rainforest* has purchased land and has built an animal rehabilitation center, has planted over 5,000 trees, runs a kid's camp every Saturday, operates a library, has published three children's books, has put up more than 120 “monkey bridges” so that monkeys and other animals can safely cross roads and power lines, and sells artwork by kids and local artisans with all of profits going to save the rainforest. *Kids Saving The Rainforest* also has a website, with project ideas for kids, tropical rainforest facts, and information about adopting rainforest trees.

In Janine's own words, “With the help of volunteers, friends, classmates, and the community, we've gone a long way. I believe that kids can make a real difference. With your help, there's no limit as to how far we can go! Join us and do your part in saving the world!”

Source: Kids Saving the Rainforest. 2008.  
<http://www.kidssavingtherainforest.org/>

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WEEK  
**4**

ACTIVITY  
**2<sub>B</sub>**

## Trees and Me

### How can I help trees and the Earth? (continued)

#### Extensions:

- **Plant a tree!** Trees act as carbon “sponges” by absorbing the carbon released from fossil fuels like gasoline and oil. We can help the Earth by reducing our carbon “footprint” and by planting trees so that more carbon is absorbed. Want to plant a tree in a tropical rainforest? See organizations like *Kids Saving the Rainforest* (<http://www.kidssavingtherainforest.org/>) and have a tree sapling planted in a reforestation area in your name. To act locally, join MillionTreesNYC (<http://www.milliontreesnyc.org/html/home/home.shtml>) and plant trees, volunteer at community events, learn how to take care of trees, and get involved in tree stewardship.
- **Help world trees.** Raise awareness (and money) for tropical rainforests. Create artwork and ask a local gallery, community center, mall, or restaurant to display it; post artwork on your classroom or school website. Ask corporations for donations of materials or costs, and then print your artwork on Earth-friendly items such as tote bags made from recycled material, recycled paper bookmarks, etc. Get the local media, such as newspapers and radio stations, involved and then host a fundraiser where your artwork and items can be auctioned.
- **Recycled art.** Start saving used containers, cardboard, paperboard, string, wrapping paper; paper towel tubes, scrap paper, and other used (but clean) materials. Have students create works of art; challenge students to use as many different materials as possible.

#### Vocabulary:

None.

#### Suggested Reading List:

Curtis, Chara M. and Aldrich, Cynthia. 1994. *All I see is a part of me*. Illumination Arts Publishing Company. 0935699074.

Geisel, Theodore Seuss. 1971. *The Lorax*. Random House Books for Young Readers. 0394823370.

Glaser, Linda. 2002. *Our big home*. Millbrook Press. 0761317767.

Jeffers, Susan. 2002. *Brother eagle, sister sky*. Puffin Books. 0142301326.

Martin, Laura C. 2004. *Recycled crafts box*. Storey Publishing. 1580175228.

Ryder, Joanne. 1999. *Earthdance*. Henry Holt and Co. 0805062319.

Sabin, Ellen. 2004. *The giving book: Open the door to a lifetime of giving*. Watering Can. 0975986805.

Sabin, Ellen. 2005. *The hero book: Learning lessons from the people you admire*. 1st edition. Watering Can. 0975986813.

#### References:

Kids Saving the Rainforest. 2008. <http://www.kidssavingtherainforest.org/>

MillionTreesNYC. 2008. <http://www.milliontreesnyc.org/html/home/home.shtml>

WEEK **4** ACTIVITY **3<sub>A</sub>**

## Trees and Me

### How can I help trees and New York City?

**Location:**

Inside or out.

**Materials:**

Whiteboard, marker, one copy of the *Making a Difference* story (included).

**Optional:** A world atlas or globe.

**Summary:**

Students listen to a story about the work of young environmental stewards and think of ways that they can help trees, New York City, and the Earth.

**Objective:**

List ways that students can help trees, New York City, and the Earth.

**Hook:**

Tell students that you are excited about sharing a story with them. Have them gather around and ask them to use their best listening and discussing/sharing skills.

Ask students how they help trees and the Earth, such as by recycling, walking to school or taking public transportation, and turning the water off when they're brushing their teeth; write these on the board. Ask students how they help New York City; add these to the list.

Tell students that the story is about young girls from California who decided to plant a tree. Optional: Have students find California in an atlas or on a globe. Ask students to listen for the specific ways that the girls helped.

Read the story and then write the specific ways that the girls helped on the board. Discuss the girls' actions: Are students surprised by the actions or the effects of the actions? Are students surprised by the girls' ages? Ask student volunteers to act out the helping actions from the story.

Ask students if they were inspired by the story and/or if they would like to do more to help trees, New York City, and the Earth; add to the original list helpful of actions.

Do a quick check for understanding: Did students

enjoy listening to the story? How does it feel to help or to give? Thank students and give them a challenge: Think about the actions that the girls took. Were they easy? Why or why not?

**Making a difference: Tara Church and the Tree Musketeers**

Tara Church and a group of her friends had gotten into trouble on a Brownie camping trip. To make things right, the eight-year-olds decided to plant a small tree near their home in California, in a forgotten (and stinky!) area between a busy airport, a sewage treatment plant, and a factory. They named the tree "Marcie the Marvelous Tree."

This simple act was only the beginning. "We just wanted to plant a tree, that's all," says Tara. "It just sort of grew." The group, now called the *Tree Musketeers*, has since planted thousands of trees, started a recycling program, and developed programs to teach young people how to be leaders in their communities. They also have a website and a newsletter and work to coordinate local Earth volunteers. The *Tree Musketeers* is the first organization aimed at helping the environment that is run "by and for kids" (with only a little help from adults).

And how is Marcie the Marvelous Tree? Marcie is now over 40-feet tall and is surrounded by other trees and plants. "Every single action of every single person is extremely valuable," Tara says. "We all have the capacity to change the world. And we have a duty to take care of everything we've been blessed with."

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WEEK  
**4**

ACTIVITY  
**3<sub>B</sub>**

## Trees and Me

### How can I help trees and New York City? (continued)

#### Sources:

Bergman, B.J. and Baxter, Tracy. 11/12-97. "Class acts." Sierra Magazine. <http://www.sierraclub.org/sierra/199711/classacts.asp>

Tree Musketeers. 2008.  
<http://www.treemusketeers.org/tm06/index.asp>

Weilbacher, Mike. 12-94. "Eight for the Earth: E Magazine's kid heroes' hall of fame." Listed on HighBeam Encyclopedia. 2008.  
<http://www.encyclopedia.com/doc/1G1-16437592.html>

#### Extensions:

- **I can help!** There are many ways to help trees and New York City, and there are many organizations that are ready to assist you. Contact MillionTreesNYC and create a "greener, greater New York": Help plant and care for trees, reforest parkland, and learn more about urban forestry (<http://www.milliontreesnyc.org/html/home/home.shtml>). Join the Junior Park Ranger program through The NYC Parks and Recreation Department and maintain trails and build wildlife habitats (<http://nycgovparks.org/index.php>). Plant trees, restore green spaces, and get-growing with New York Restoration Project ([www.nyrp.org/](http://www.nyrp.org/)).
- **Superhero!** Imagine that you have been asked to create a New York City superhero that defends city trees, wildlife, and natural areas. Develop this new character. What are his/her/its special powers? Does he/she/it have an Achilles heel? How about a special motto, an alias, helpers or sidekicks, or arch-enemies? How is the new superhero like you?

#### Vocabulary:

None.

#### Suggested Reading List:

Baker, Jeannie. 2004. *Home*. Green Willow Books. 0066239354.

Disalvo-Ryan, Dyanne. 1994. *City green*. HarperCollins. 068812786X.

Sabin, Ellen. 2004. *The giving book: Open the door to a lifetime of giving*. Watering Can. 0975986805.

Sabin, Ellen. 2005. *The hero book: Learning lessons from the people you admire*. 1st edition. Watering Can. 0975986813.

William, Karen L. 2005. *Circles of hope*. Eerdman's Books for Young Readers. 0802852769.

#### Teacher Resources:

MillionTreesNYC. 2008.  
<http://www.milliontreesnyc.org/html/home/home.shtml>

New York Department of Parks and Recreation. 2008.  
<http://nycgovparks.org/index.php>

New York Restoration Project. 2008. [www.nyrp.org/](http://www.nyrp.org/)

#### References:

Bergman, B.J. and Baxter, Tracy. 11/12-97. "Class acts." Sierra Magazine.  
<http://www.sierraclub.org/sierra/199711/classacts.asp>

Tree Musketeers. 2008.  
<http://www.treemusketeers.org/tm06/index.asp>

Weilbacher, Mike. 12-94. "Eight for the Earth: E Magazine's kid heroes' hall of fame." Listed on HighBeam Encyclopedia. 2008.  
<http://www.encyclopedia.com/doc/1G1-16437592.html>

## Trees and Me

### How can I help trees in my New York City neighborhood?

#### Location:

Inside or out.

#### Materials:

Whiteboard, marker, one copy of the *Making a Difference* story (included).

**Optional:** A United States map or globe.

#### Summary:

Students listen to a story about the work of a youth-led environmental organization and think of ways that they can help trees, their neighborhood, and the Earth.

#### Objective:

List ways that students can help trees, their neighborhood, and the Earth.

#### Hook:

Tell students that you are excited about sharing a story with them. Have them gather around and ask them to use their best listening and discussing/sharing skills.

Ask students how they help trees and the Earth, such as by recycling, walking to school or taking public transportation, and turning the water off when they're brushing their teeth; write these on the board. Ask students how they help their neighborhood; add these to the board.

Tell students that the story is about an organization in New Haven, Connecticut, that helps local communities and the Earth. Optional: Have students find Connecticut on a U.S. map or on a globe. Ask students to listen for the specific ways that the girls helped.

Read the story and then list the specific ways that people in the organization helped. Discuss the actions: Are students surprised by the actions or the effects of the actions? Are students surprised by the ages of the organization's members? Ask student volunteers to act out the helping actions from the story.

Ask students if they were inspired by the story and/or if they would like to do more to help trees, their neighborhood, and the Earth; add to the original list of helpful actions.

Do a quick check for understanding: Did students enjoy listening to the story? How does it feel to help or to give? Thank students and give them a challenge: Think about the actions that the people in the organization took. Were they easy? Why or why not?

#### Making a difference: Natural Guard

Tim Mack and Damian Anderson were just two kids who wanted to turn a vacant lot into a garden. They wrote to the mayor of their city to ask about the space, but time passed and they didn't hear anything. Instead of giving up, they joined other kids in the *Natural Guard*, an organization focused on community giving.

The *Natural Guard* was started in 1990 when a famous singer and guitarist, Richie Havens, realized that kids did not think about helping the environment in their own communities. Havens wanted to empower young people to do positive things. Says Havens, "An eight-year-old kid might ask if we can grow a garden to feed the homeless. They actually did it. They grew three gardens and grew food in the middle of New Haven, Connecticut, which I never thought was possible. They supplied the soup kitchens that summer. They did that for six years."

In addition to growing vegetables for soup kitchens, the *Guard* tests water quality, plants trees to beautify neighborhoods, and takes students on field trips to see the ocean. The *Guard* also designed a coloring book to warn kids and parents about lead poisoning.

Tim Mack says, "We're a lot of kids working together, not fighting and not arguing." Joseph Golden of the *Guard* adds, "It's all right to help. You don't have to be a punk just to plant a tree. You get a great joy to see something grow that you made."

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## Trees and Me

### How can I help trees in my New York City neighborhood? (cont.)

#### Sources:

Idealist.org: Action without Borders. 2008.  
<http://www.idealists.org/en/org/16047-125>

Parker, T. Virgil. 03-08. "Richie Havens." College Crier Online. <http://www.collegecrier.com/interviews/int-0011.asp>

Stuart's Opera House. 03-08. "Richie Havens."  
<http://www.stuartsoperahouse.org/index.php?item=200>

Weilbacher, Mike. 12-94. "Eight for the Earth: E Magazine's kid heroes' hall of fame." Listed on HighBeam Encyclopedia. 2008.  
<http://www.encyclopedia.com/doc/1G116437592.html>

Wiser Earth. 2007. [www.wiserearth.org/organization/view/5a294d368ae0c8e1e3fb9b7315d7d5f1](http://www.wiserearth.org/organization/view/5a294d368ae0c8e1e3fb9b7315d7d5f1)

#### Extensions:

- **Special care.** Adopt a tree or green space in your schoolyard or in the neighborhood around your school. Connect with the tree or space regularly; visit often to pick up trash and to rake leaves, etc. Have students record the changes in the tree or space through the seasons. Hold a special dedication ceremony and celebrate!
- **Another way to give.** Plant flower and/or vegetable seeds in used containers (like milk cartons or yogurt six packs). Water the seeds and place them in a sunny, protected place to grow. Record the growth of the seedlings: draw pictures and take measurements each week. When the plants have grown strong, give them to members of your community. Visit a neighborhood nursing home and make someone's day!

#### Vocabulary:

None.

#### Suggested Reading List:

Baker, Jeannie. 2004. *Home*. Green Willow Books. 0066239354.

Cole, Kenneth. 2001. *No bad news*. Albert Whitman and Company. 0807547433.

Disalvo-Ryan, Dyanne. 1994. *City green*. HarperCollins. 068812786X.

\*Fife, Dale H. 1996. *The empty lot*. Sierra Club Books for Children. 0871568594.

Pollak, Barbara. 2004. *Our community garden*. Beyond Words. 1582701091.

Sabin, Ellen. 2004. *The giving book: Open the door to a lifetime of giving*. Watering Can. 0975986805.

Sabin, Ellen. 2005. *The hero book: Learning lessons from the people you admire*. 1st edition. Watering Can. 0975986813.

#### References:

Idealist.org: Action without Borders. 2008.  
<http://www.idealists.org/en/org/16047-125>

Parker, T. Virgil. 03-08. "Richie Havens." College Crier Online. <http://www.collegecrier.com/interviews/int-0011.asp>

Stuart's Opera House. 03-08. "Richie Havens."  
<http://www.stuartsoperahouse.org/index.php?item=200>

Weilbacher, Mike. 12-94. "Eight for the Earth: E Magazine's kid heroes' hall of fame." Listed on HighBeam Encyclopedia. 2008.  
<http://www.encyclopedia.com/doc/1G116437592.html>

Wiser Earth. 2007. [www.wiserearth.org/organization/view/5a294d368ae0c8e1e3fb9b7315d7d5f1](http://www.wiserearth.org/organization/view/5a294d368ae0c8e1e3fb9b7315d7d5f1)



WEEK  
4

ACTIVITY  
5<sub>A</sub>

## Trees and Planet Earth

### How can I improve the actions that I take every day?

#### Location:

Inside or out.

#### Materials:

Whiteboard, marker.

#### Summary:

Students consider ways to improve everyday actions for the health of trees and the Earth in a version of "The Wind is Blowing."

#### Objective:

Describe ways that

students can improve (or change the impact of) at least one action taken on a regular basis.

#### Hook:

Ask students if they would like to play a game about the things that they do every day.

Make a list of actions that are taken every day or on a regular basis, such as taking a shower, walking to school, or eating breakfast. Then play "The Wind is Blowing" with these actions: Have the class form a circle standing at arm's length apart. Choose one student to be the "wind" and ask him/her to stand in the center of the circle. The student then acts like the wind (by turning in a circle and waving his/her arms) and says "The wind is blowing..." At this point, he/she adds an action (taken every day) from the list, a statement that must be true for him/her. (For example, "The wind is blowing everyone who takes a shower.") Students who also take this action then run through the circle to a position that is empty. The student who is left without a spot to stand in becomes the "wind." Continue playing until time is called. Discuss: Did students enjoy playing the game? Do we all take similar actions on a daily basis?

Tell students that most actions that we take can be improved so that they are good for trees and the Earth; some actions are harmful and need to be changed. Look back at the list of actions; for each action listed, decide if there is a way that it can be improved (so that it will have less impact). For example, taking a shower can be improved by making it short.

Tell students that sometimes it's the little things that we do every day that can make a big difference for trees and the Earth.

Do a quick check for understanding: Name an action that is taken every day and ask students how they can improve it. Is it easy or difficult to think of ways to change their actions? Thank students and give them a challenge: When you go home today, think of one more action that you take and think of a way to make it better.

#### Extensions:

- **Say something nice.** Sit in a circle with your students. Ask them to think of their best qualities or ways that they are helpful. What qualities do they like for others to notice? Then have them look at the person to their left. Think silently to themselves: What are some of this person's best qualities?

**Model the sharing:** Begin by saying something nice about the student to your left; use the student's name and look directly at the student. Then ask students to continue around the circle, saying something nice about the person to their left.

**Discuss:** How did it feel to be acknowledged? How could students practice this simple act at home or in other places?

#### Vocabulary:

None.

#### Suggested Reading List:

Sabin, Ellen. 2004. *The giving book: Open the door to a lifetime of giving*. Watering Can. 0975986805.

Sabin, Ellen. 2005. *The hero book: Learning lessons from the people you admire*. 1st edition. Watering Can. 0975986813.