Key Words and Definitions

**TREE**: plant that is usually more than 10 feet tall and has roots, a trunk, branches and leaves. The trunk and branches are made of fibers called wood.

**TRUNK**: woody stem of a tree.

**ROOTS**: fibers that anchor the tree to the soil and suck up water and minerals.

**BRANCHES**: structures that support the leaves and grow towards the sunlight.

**LEAF**: flat, blade-like structure that collects sunlight and makes sugar.

**SEEDS**: part of a tree that can grow into new trees.

*Look for keywords—BOLDED—throughout this lesson extension!*

Activity 1: Seedling Relay Race

*One, approximately 25-minute session; pre-visit*

**LEARNING OBJECTIVE**

Students embody the functions of different tree parts as they engage in an all-class relay race.

**MATERIALS**

- Spoons
- Blue ping pong balls
- Masking tape
- Yellow balloons
- Optional: candy
**PROCEDURE**

Tell your students that today they take part in a relay race! This race will teach them more about the roles of each **TREE** part. Take a moment now to define or reinforce tree parts and their functions. If you would like, pair each tree part with a body movement to help students remember the functions. **ROOTS** slurp water and minerals. Have students use their fingers as roots and make a slurping sound. **TRUNKS** transport water and minerals and keep the tree safe. Have students stand as tall and still as possible. **BRANCHES** help leaves find sunshine. Have students wave their arms over their heads. **LEAVES** make water and sunshine into tasty sugar for the plant. Have students wiggle their fingers and reach up towards the light. Divide the class into teams and show them the racetrack.

- **Station 1 (roots)**: There should be squiggly-tape paths for roots. Here, the student in the root role carries “water”—a blue ping pong ball on the spoon—to the trunk. They must be careful not to drop it!

- **Station 2 (trunk)**: The root then passes on the “water” to the trunk student, who must balance on one, thin line of tape all the way to the branches and leaves.

- **Station 3 (branch + leaf)**: This station involves two students. One student represents a branch, while the other represents a root. The branch student must take the “water” from the trunk. Then the branch must help the leaf student to reach the sun—a yellow balloon a few feet away. The branch and leaf must be connected at all times (i.e., holding hands). The branch student’s foot may not leave the taped line. The leaf’s job is to reach for the “sun” (i.e., pick up one balloon). Once branch and root have the “sun,” they can touch it to the “water.” This will result in sugar for the whole tree! If possible or desired, give each student a piece of candy to represent sugar.

**Activity 2: Tree Yoga**

*One, approximately 30-minute session; post visit*

**LEARNING OBJECTIVE**

Students reflect upon the importance of trees as they engage in a body movement activity.

**MATERIALS**

Adapted “Lessons from a Tree” (see below)

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Wave Hill  Lesson Extensions  Totally Trees 2
PROCEDURE

Share with students that you will spend some time thinking more about what life as a tree is like. Together, you will do tree yoga and consider the lessons trees have to teach. In an open space, lead the class. Begin each pose by reading a section adapted from "Lessons from a Tree".

1. **Stand Tall and Strong**

   With silent confidence, **trees** grow taller and stronger each year, extending their **trunks** and **branches** up towards the sky. Remember to stand tall and proud. (Have students begin with arms at their sides. Then have them reach both arms up to stretch overhead. Have them rise up on the balls of their feet and come back down a few times.)

2. **Be Flexible**

   Trees are flexible. From blistering cold wind to hot sun, trees bend their branches without breaking. Have students hug their bodies and swing side to side. Have them make wide circles with their arms. Have students bring their arms together overhead in a ballerina pose and bend over to touch their toes.

3. **Stay Grounded**

   Even as trees reach up toward great heights, they remain grounded by their **roots**. Connect with your roots. Have students wiggle their toes, rotate their ankles and shake their legs. Have them step into a wide stance and reach their arms from side to side. Have them balance on one leg at a time.

4. **Grow a New Layer**

   Trees add a new ring to their trunk each year, and you can tell the age of the tree by counting its rings. Explore a new skill. Go somewhere unfamiliar. Give students a moment to freestyle around the room.

5. **Share Nourishment**

   Trees drink water from deep in the earth. They extend their **leaves** to the sun and fresh air, sharing nourishment with one another. Have students sit across from one another. With their legs in a wide “V” shape, have them touch their feet together. Then have them reach for one another’s hands and gently tug each other’s hands.
6. Embrace Each Season

Each season has its own special feature, and trees are experts at embracing each one. Enjoy the excitement of spring, the growth of summer, letting go in autumn and resting during the winter. Have students jump for joy in spring, do a “tree pose” in summer, perform “cat-cow” in autumn and rest on their backs for winter. As students rest on their backs with eyes closed, remind them to thank the trees for all they can teach us.

SOURCES


BACKGROUND INFORMATION

Tree Parts and Functions