# THE NEW YORK BOTANICAL GARDEN

# Life in the Rain Forest: Pre-/Post-Visit Activities



# **TEACHER GUIDE**

Thank you for registering for the GreenSchool Workshop *Life in the Rain Forest*. During this workshop, your students will explore the amazing rain forest exhibits in the Conservatory, learn about plant adaptations, and pot up a rain forest plant to take back to the classroom. The following selection of pre- and post-visit activity ideas and recommended resources is designed to support K–5th grade classroom integration of the plant science concepts addressed in *Life in the Rain Forest*.

# **PRE-VISIT ACTIVITY IDEAS**Forest Words

Students use their understanding about forests to create a forest picture poem.

### Materials:

- paper
- pencils

Ask your class to share what they know about forests, and to brainstorm words that they associate with forests. These should include things that they would find in a forest, as well as descriptive words about the textures, shapes, sounds, and smells they might experience in a forest. Record these words on the board or on a sheet of chart paper.

Explain that they are going to use these words to create their own individual picture poems—a picture created with words that relate to the shape they make. For example, they can choose a series of words about trees and use them to make a tree shape, or a group of words describing leaves to form the shape of a pile of leaves. As your students create their

poems, remind them to keep in mind that the poem doesn't have to rhyme or follow any particular order.

#### The Rain Forest in Your Mind

Students use mental imagery and drawing to explore and extend their existing ideas about rain forests.

## Materials:

- drawing paper
- crayons and/or markers and/or colored pencils

Tell your students that before they begin studying the rain forest, they are going to visit the "rain forest of their imagination." Instruct them to close their eyes for two minutes, and to silently think about the words "rain forest."

- •What do you think a rain forest looks like?
- •What might the plants look like?
- What kinds of animals would you expect to see?

- What would the air feel and smell like?
- What kinds of sounds would you hear?

Encourage each student to take a walk through the rain forest that they see in their mind, and to explore it as fully as possible.

After the students have opened their eyes, distribute drawing materials. Explain that they are to create a picture of the rain forest that they imagined. When the pieces are finished, have students share and explain their work.

# POST-VISIT ACTIVITY IDEAS

# **Measuring Rain**

Students deepen their understanding about amount of rain in a rain forest by tracking and comparing local rainfall.

### Materials:

- daily weather section of newspaper
- graph paper
- markers

Create a large graph to track the daily rainfall (in inches) for a set time period (a week to a month), and have your students make a similar one of their own on graph paper. Set aside a short time period each day to refer to the previous day's weather report and record that day's data. As the data is recorded on the class graph, the students should record it on their personal graphs. Discuss any trends that you notice.

At the end of the time period, calculate the total amount of rain that has fallen. Remind the class that in a typical year, a tropical rain forest receives 100 to 400 inches of rain.

- •At the rate that rain fell in your area, how long would it take to collect 100 inches?
- •How long for 400 inches?
- What would the rate of weekly rainfall need to be if it were to rain 100 inches in a year?

Do Wax and Drip Tips Do the Trick?

Students extend their understanding of rain forest plant adaptations by testing the effectiveness of waxy leaves in repelling water.

### Materials:

- waxed paper
- bowls of water
- paper
- scissors

After reviewing with your students basic plant science and rain forest plant adaptations they learned in the *Life in the Rain Forest* GreenSchool Workshop, explain that they are going to test out some of these adaptations.

Distribute two small bowls of water to each group of students. Give each group equal-sized pieces of waxed paper and regular paper, and direct them to submerge each piece in a bowl of water for about 10 seconds before removing them.

- •What do you notice?
- What was the effect of the water on the regular paper?
- •What about on the waxed paper?
- •Why did these results occur?
- How does this relate to rain forest plants?

Distribute additional pieces of waxed paper to each group of students. Guide them through the process of cutting out one 'leaf' with rounded edges, and one 'leaf' with a long, pointy edge (like a drip tip). Instruct them to dip each 'leaf' into the bowls of water before holding them over the bowl.

- Which 'leaf' allows water to move off the fastest? Why is this?
- How does this relate to rain forest plants?

# **RECOMMENDED TEACHER RESOURCES**

**Burnie, David.** *Plant.* New York: Dorling Kindersley, 2000.

**Silver, Donald M.** *Tropical Rain Forest* (*One Small Square*). New York: W.H. Freeman and Company, 1999.

# RECOMMENDED BOOKS FOR CHILDREN Cherry, Lynne, and Mark J. Plotkin. The Shaman's Apprentice New York

The Shaman's Apprentice. New York: Harcourt Brace & Company, 1998.

**Dunphy, Madeleine.** Here is the Tropical Rain Forest. New York: Hyperion Paperbacks for Children, 1997.

**Taylor, Barbara.** *Rain Forest.* New York: DK Publishing, Inc., 1998.

For more information, call the Manager of School Programs at 718.817.8124.